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REPORT ON A SURVEY OF AGRICULTURAL RESEARCH AND PROGRAMMES FOR LIVESTOCK DEVELOPMENT IN THE AFRICAN REGION

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I. INTRODUCTION

1. In 1985, the livestock population (cattle, buffaloes, sheep, goats, pigs, horses and chickens) of the continent was estimated at about 221.5 million tropical livestock units, or 116 per cent of that of 1975. 1/ The overall increase in total indigenous meat production of 3 per cent over the last decade, although keeping pace with that of human population, was insufficient to offset the impacts of rising incomes. Also, it is unlikely that Africa's meat and dairy requirements can be satisfied in the short and medium term from its own huge resources.

2. Directly or indirectly, livestock resources in Africa play an important role in all strata of traditional and contemporary African societies and economies. For instance, animal products rather than cereals are the main source of dietary energy supply for the populations living in the areas most seriously affected by drought and desertification, and are also the main source of proteins for the high-income and urban consumers. However, the contribution livestock is making and can make to overall development, especially in achieving individual and collective food self-sufficiency and food security, is still too little understood.

3. The African livestock sector is generally in the hands of private operators at both production and trade levels. However, the importance and the role of indigenous producers, merchants, traders and butchers and the strengths of the traditional production systems are insufficiently known to be appreciated and accepted by policy analysts and decision-makers. This lack of knowledge resulted in interventionist policies that concentrated in the hands of African Governments the whole responsibility for the basic investments, the supply of inputs and the provision of supporting services with mixed results but certainly with limited success. Moreover, governmental interventions tended to hamper the self-help, self-reliant and independent capability of the operators and the sector could not develop from its own inner strength.

4. The movement of animals and their owners across national boundaries characterizes livestock production in Africa. Also, drought, tsetse flies, ticks and animal diseases in general do not know any political boundary. Therefore, sustained development of the sector even in a given country can be achieved only through effective co-operation among neighbouring countries. However, the still pervasive dependency of individual nations on the outside world makes it difficult to develop any meaningful co-operation at subregional and regional levels in the livestock sector.

5. Nevertheless, thanks to international assistance, Africa is now endowed with and assisted by an impressive number of training, research, extension and development institutions at both national and international levels. However, most of these institutions, especially at national and subregional levels, are operating below capacity. Also the professional staff often lack the necessary operating funds to perform efficiently their duties.

1/ One Tropical Livestock Unit (TLU) is an animal of 250 kg live weight. The TLU conversion factors used in this study are for cattle (1.0), buffaloes (1.0), goats (0.1), sheep (0.1), pigs (0.2), horses (1.0) and chickens (0.01).

6. Over the last three decades, the overall efforts aimed at promoting livestock development were not commensurate with the magnitude and the potentials of the sector. Indeed, for the continent, less than $US 0.50 per unit of livestock per year was disbursed over the period under review. Therefore, Africa became increasingly dependent on the outside world to meet not only its requirements for animal agricultural inputs and services but also the demand for meat and dairy products of its rising human population. For instance, Africa moved from a position of net exporter of meat in 1975 to that of net importer in 1984. Also, livestock trade deficit grew at an annual average rate of about 16 per cent over the last decade reaching nearly $US 2.1 billion in 1984 for 45 countries.

7. Currently, the African livestock sector is crippled by a crisis of confidence on the part of the traditional donors and financing institutions. A number of countries and international organizations have drastically cut assistance to specific livestock projects. Moreover, the share of multilateral aid for livestock in total aid has been reduced and terms have become stringent. As a result, no comprehensive solution was found to the problem of rinderpest which has devastated cattle herds all over the continent since 1980. Also, the impact of recent droughts throughout Africa on the livestock sector was more damaging than in the 1970s.

8. To reverse the present trends in the poor performance of the sector, it is imperative to rethink the development process in order to ensure increasing measures of self-reliance and self-sustainment in the animal agriculture sector at both national and subregional levels. Collectively, Africa should endeavour to derive the maximum benefit from the sector especially to achieve greater individual and collective self-sufficiency in animal food production and availability.

9. The present report is called for by the ECA work programme for the biennium 1986-1987 on food and agriculture in Africa as approved by the United Nations General Assembly. It is based on information collected during field visits and discussions held with the officials of various organizations. 2/

10. This paper is meant to provoke discussions on the impacts of past development efforts on the performance of the sector and to propose alternative livestock development approaches. Emphasis has been put on measures that will help to make the livestock operators responsible for their own development and to lay solid foundations for greater national and collective self-reliance. In section II, an overview of livestock development in Africa is given while in section III some lessons are drawn from past experiences. Section IV contains the conclusions and recommendations.

2/ The following institutions in Kenya were visited: the Food and Agriculture Organization of the United Nations (FAO), the Inter-African Bureau for Animal Resources of the Organization of African Unity (OAU/IBAR); the International Centre for Insect Physiology and Ecology (ICIPE); the International Laboratory for Research on Animal Diseases (ILRAD); the subregional offices of the United States Agency for International Development (USAID) and of the World Bank in Eastern and Southern Africa, and the office of the European Economic Community (EEC).

II. OVERVIEW OF LIVESTOCK DEVELOPMENT IN AFRICA

11. Livestock resources play an important role in the economy of many African countries. The livestock sector contributes significantly to the gross domestic product (GDP) and to the alleviation of unemployment in many countries. It is also a source of foreign exchange. Furthermore, the sector provides the needed input to many industries in the form of meat, hides, skins, etc., and constitutes an important source of demand for many livestock input supplying industries producing animal feed, veterinary products and equipment and manufactured consumer goods.

12. As a major source of subsistence and cash for most rural populations, livestock enjoys a particular important place in the rural economy. Besides being an additional source of employment and income on the farm, livestock helps to improve the productivity of cropping enterprises. It is used as draught power mainly for ploughing, seeding, weeding and harvesting; as a means of transportation in particular for agricultural inputs and outputs, as part of the remuneration for carrying out various activities, especially on the farms and as a source of employment such as backyard fattening during the off-peak season. Farmers substitute livestock manure to some extent for cement, firewood and for imported and relatively expensive fertilizers. Livestock enhances the efficient use of land, which would not otherwise be suitable for cropping, or is left to fallow and provides for the efficient utilization of agricultural by-products. Livestock provides a means of security and savings, as it is readily convertible into cash particularly for the population in remote places having no banking services. Livestock has an important social role for many African livestock communities, not only as a source of wealth and prestige, but also for use in religious ceremonies and many social occasions, especially in marriage, as a major part of the dowry.

13. The potentials for integrating livestock economies at both subregional and regional levels are great. Indeed, the sector is characterized by the movement of both animals and their owners across national boundaries in search mainly of water, pastures, animal health and marketing services. It is not uncommon to see a livestock owner with more than one national identification card. In brief, the entrepreneurs that operate in the livestock sector satisfy most of the clauses ingrained in the protocols of "free movement" of goods and persons within and between economic groupings. Furthermore, animal products meet the basic principles of the protocols of the rule of origin, since they are entirely produced and processed in Africa and traded by African entrepreneurs except in a few cases. In practice, trading of these products is less constrained by the availability of different national currencies among partners.

14. While livestock provides a basis for strengthening co-operation among producing countries the more and more frequent and widespread drought is affecting one or more adjacent livestock-producing countries and, like trypanosomiasis, tick-borne and other animal diseases, knows no political boundaries. Therefore, livestock development efforts in one country may affect or be affected by what is done in adjacent countries or by the attitude of neighbouring governments.

15. Animal products are potential sources of mutual profitable co-operation among low- and high-income nations in Africa. Indeed, the former group has great potential for production while the latter has it for demand for animal

products especially meat and milk. Even in periods of trade restrictions, it was observed that smugglers would always manage to supply the high-income markets with slaughtered animals since control at cross points was almost impossible.

16. In short, the African livestock sector constitutes one of the few areas to which the principles of the Lagos Plan of Action can be readily applicable and where they can be successfully implemented. Sustained development in the sector can be achieved only on the basis of increased measures of individual and collective self-reliance leading ultimately to greater individual and collective self-sufficiency in animal agriculture production and supply.

17. In view of the potential of the livestock sector, it was natural that African Governments should endeavour to mobilize this potential and thereby improve its contribution to overall development objectives. However, to do so, livestock development problems need to be clearly identified and efficiently addressed.

A. Livestock development problems

18. Throughout Africa, the livestock sector is dominated by the private sector and operating at a low level of technology. In particular, in the pastoral areas where the bulk of production takes place, livestock production is near to subsistence level in terms of input use. Also, the individual household producer tends to minimize the off-take of animals for meat production, subject to satisfying the subsistence requirements of his household in meat, milk and in other goods and services; the reconstitution of herds after catastrophic droughts and killer diseases; institutional constraints, and coping with the availability of scarce resources and services.

19. This behaviour of the individual household producer, although rational, leads (when aggregated) to a suboptimal exploitation of national range and animal resources. Therefore, a conflict appears between the objective of household producers and that of the society, namely the optimal exploitation of the nation's total livestock and range resources for an increased supply of quality marketed meat and milk at competitive prices.

20. The overall livestock development problem can then be conceptualized as how to reconcile the objectives of household producers with that of the society. Normally, solutions will include alleviating and/or eliminating the constraints facing the producers and influencing their behaviour so as to constantly move to a new and higher production curve. Also, actions and regulations to increase the efficiency of both livestock inputs and outputs would be required to make the production responsive to demand.

B. Approaches to livestock development

21. As expected, African Governments intervened in the sector and early public interventions were mostly geared towards minimizing the effects of diseases and droughts, the two factors behind the reconstitution objective of the individual producer. Also, efforts were directed towards training, especially at graduate level; the development and transfer of technologies as they relate to stock breeding, animal traction, intensive production of meat and milk, control and eradication of animal diseases and parasites, as well as towards the creation of processing and marketing facilities.

22. Furthermore, African Governments initiated bilateral and multilateral agreements in both production and trade of livestock products and by-products to increase collective self-sufficiency and to diversify market. In particular, the EEC has since 1985 allowed increased imports of beef free of tariff duty and at reduced rates of levy from a number of African countries (FAO, 1986 a). Also, certain livestock products of African origin are covered by the stabilization of export (STABEX) scheme of the EEC.

23. Since livestock production as well as trade activities were and are essentially in the hands of private national individuals, one should expect that the governmental interventions should be directed towards creating an economic climate that would develop and strengthen the self-help, self-reliant and independent capability of indigenous producers and traders for an increased supply of quality livestock products at reasonable prices. At the same time, actions should be initiated, laws and regulations should be enacted to ensure the protection of public health, the protection and conservation of the environment and to help achieve the income distribution objective at national level. All in all, public policy was expected to enhance the ability of the livestock sector to satisfy human needs more adequately.

24. Past interventions, however, were based on wrong assumptions. Indeed, the rationale behind minimizing the off-take of animals was qualified as a desire to satisfy mainly the search for a social status and/or to maximize the benefit from the common range resources in a society that is known to be constantly on the move (transhumance or nomadic). Planners, therefore, thought that focus should be on animals rather than on their owners and that they would do better by bringing them in only at the stage of the execution of the project and often on a mandatory basis. This attitude led, obviously, to the minimal participation of livestock owners in governmental efforts.

25. Therefore, most African Governments attempted to replace a well-established and effective private sector by public initiatives mainly through the promotion of projects and parastatal organizations. Through this process, most African Governments assumed the entire responsibility for basic investments and the supply of inputs and services at both production and marketing levels, neglecting to define and to adopt effective policies for charges to users or a code of use governed by appropriate legislation.

26. Moreover, the governmental resources, especially financial, were not sufficient to execute such a strategy and its related programmes and appeal was then made to the international community for assistance. Thus, the African livestock sector received particular attention and support especially in the 1970s following the outbreaks of rinderpest and the occurrence of drought in the Sahel. A series of internationally funded projects covering virtually all aspects of livestock research and development have been initiated at national, subregional, regional and international levels.

27. Owing to the magnitude of the livestock problems, the intervention of a multitude of donor and lending agencies was required for a given country. Each major donor and lending agency designed its own framework and strategies for its interventions in the African livestock sector, often with minimal consultation among themselves and with the host countries. Consequently, the recipient governments were burdened by a wide range of differing and often conflicting livestock development policies and of projects implemented on piecemeal basis. More importantly, the lead role in project preparation,

even identification, implementation and evaluation was played by the donors and lending agencies. Pre-conditions for funds to be released often included major administrative and policy reforms that were imposed on the recipient countries.

28. Since both importing and exporting countries, even through subregional organizations such as CILSS and CEBV in West Africa, aimed at national self-sufficiency in the production and supply of livestock inputs and outputs, the competition for the rather limited development assistance was keen. This has led to suboptimal allocation of livestock resources and development assistance and made it difficult to develop any meaningful subregional and regional co-operation for integrating African livestock economies.

C. Mobilization of resources

29. As stated earlier, Africa relied heavily on the outside world to implement its livestock policies and programmes and governmental interventions were directed towards individual self-sufficiency in animal agriculture. Estimates of Africa's own participation in livestock development in this study are assumed to be about $US 20 for every $US 100 of total commitment over the period under review. Therefore, it can be understood why Africa was not able to direct external resources to its priority programmes in the livestock sector.

30. Data and information on Africa's performance to mobilize external resources are rather scanty. Above all, the external resources are managed by the donors and lending institutions and considerable differences existed between resources committed and disbursed. Also, information on bilateral assistance, which assumed greater importance in the total in the 1980s, is difficult to obtain. Therefore, the information on resource flows to the sector should be treated with caution.

31. Overall, the assistance to livestock development in developing countries appears to have decreased in recent years, at least in terms of the quantum of financial resources and taking into account inflation. Africa appears to have received the largest share of commitments for livestock between the mid-1970s and early 1980s, perhaps because nearly half of the countries in the region qualified for the International Development Association (IDA) assistance on concessional terms. The share of multilateral aid for livestock in total aid has been reduced and the terms have become more stringent. At the same time, a number of countries and international organizations have drastically cut assistance to specific livestock projects (FAO, 1986 b).

32. External resource flows for livestock in Africa totalled $US 789 million over the period 1974-1983 excluding technical assistance grants through FAO from UNDP Trust Funds (TF) and FAO's own Technical Co-operation Programme (TCP) (FAO, 1986 a). Assuming that resources channelled through FAO averaged about $US 20 million per year, the total external resource flows would have been about $US 989 million. Comparable figures for the period 1960-1975 were estimated at over $US 900 million (Jahnke, 1982). The total resources (internal plus external) committed to the sector, taking into account the assumption on Africa's own participation of 20 per cent in total commitment, would then be $US 1,236 million and $US 750 million over the periods 1960-1975 and 1974-1983 respectively. Even if one ignores the overlap between the two periods, the total commitment would be less than $US 2 billion for about a quarter of a century. This sum is even less than the target of $US 2.4

billion (at 1979 prices) set in the Lagos Plan of Action for the sole period of 1980-1985 (OAU, 1981). The assistance of some of the institutions for which data are available is reviewed below.

1. The Arab Bank for Economic Development in Africa (BADEA)

33. During the first 10 years of operation (1975-1984), BADEA made a modest contribution to livestock development by committing about $US 19.2 million for six countries. The loans were at a low interest rate of 1 or 2 per cent. The grace period varied between 3 and 10 years and that of repayment from 10 to 25 years. The share of livestock in the total lending of BADEA to Africa was about 22 per cent.

34. Some of the projects were totally financed by BADEA while others were co-financed with the participation of the Islamic Development Bank or the Funds of Kuwait and/or of the Organization of Petroleum Exporting Countries. The total cost of such projects in which BADEA was involved amounted to $US 55 million (BADEA, 1985).

2. The Food and Agriculture Organization of the United Nations (FAO)

35. FAO assists the African livestock sector under three major programmes financed through UNDP, Trust Funds and Technical Co-operation Programme. Over the period 1978-1983, the flows of technical assistance through FAO to the sector declined slightly even though there was an increase in these for the agricultural sector as a whole. Several countries, especially the Libyan Arab Jamahiriya, Saudi Arabia, Qatar, Denmark, Finland, Sweden and Switzerland are contributors to the Trust Fund (FAO, 1986 b).

36. As of 1982, the total budget for the 197 field projects executed by FAO was estimated at $US 160.5 million with an expenditure of $US 22.7 million in 1982. The largest share of the livestock development investment consisted of loans made on concessional terms. It is to be noted that UNDP, the major contributor to FAO, is now implementing some projects directly in recipient countries (FAO, 1985).

3. The European Economic Community (EEC)

37. Through the Yaounde and the first two Lome Conventions, the Community has committed about 145 million ECU (cumulated at 1982 exchange rate) essentially for livestock development in Africa. The average disbursement rate was about 74 per cent for the first three Economic Development Fund (EDF) cycles (SCTESA, 1982).

38. All in all, about 3 per cent of the total EDF was committed for the livestock sector. Comparable figure for disbursement was a little higher than 2 per cent. Even though, since the second EDF, the allocation to the sector is increasing in absolute value, it is decreasing in terms of its share in total commitment.

4. The International Fund for Agricultural Development (IFAD)

39. Over the period 1978-1986, IFAD made six loans to five countries on highly concessional terms for the development of the sector. The total commitment was $US 40 million or 21 per cent of total lending to Africa. Like BADEA, IFAD was also involved in project co-financing and its contribution in total project cost was about 30 per cent (IFAD, 1986).

5. The United States Agency for International Development (USAID)

40. USAID is actively involved in livestock development in Africa. Up to 1980, about 65 projects were financed by USAID. Although heavy emphasis is placed on bilateral efforts, which are considered to be highly responsive to priority country needs, USAID had financed 13 subregional projects. About 59 per cent of the projects were initiated between 1975 and 1980.

6. The World Bank (IBRD)

41. From 1967 to 1981, the Bank including IDA has been involved in 34 livestock projects for about $US 295 million out of a total cost of $US 570 million. In addition, the Bank financed the livestock component of rural integrated projects to the amount of about $US 180 million.

42. The Bank's involvement in the African livestock sector grew fast in real terms up to 1975 and thereafter it declined for livestock-only projects. For instance, the annual multilateral commitments to livestock in the mid-1970s decreased from 79 to only 9 per cent in the mid-1980s. Also, the terms of the loans became harder as only 45 per cent of these were concessional in the early 1980s as compared to 70 per cent in the mid-1970s (FAO, 1986 b).

43. The real impact of the resources disbursed for the sector lies in institution building and in manpower development. For instance, with 22 veterinary laboratories producing vaccines and four additional laboratories being established, Africa would be endowed on average with one vaccine-producing laboratory for every two countries. Virtually all African countries possessed at least one diagnostic laboratory. More than 16,000 veterinarians were trained for Africa, which represents about 15,000 livestock units per veterinarian. Modern and rural types of slaughter houses were built in most urban centres and in some large villages respectively. In some countries, livestock-related industries, particularly tanneries, were built while research and training institutions were established in almost all.

44. At subregional and regional levels exist the CAU/IBAR (Kenya), the Communauté économique du bétail et de la viande (CEBV) (Burkina Faso), the Institut de recherche agronomique et zootechnique (IRAZ) (Burundi). Also, many other intergovernmental organizations have Divisions dealing with livestock research and development in their respective jurisdictions. At the international level, institutions such as ILCA, ILRAD and ICIPE were established and are working totally or partially on issues related to the African livestock sector.

D. Performance of the livestock sector, 1975-1985

45. In analysing the performance of the livestock sector, it is difficult to identify what is due to the interventions of the African Governments assisted by the international community. All in all, public interventions tended to hamper the self-reliant, self-help and independent capability of "traditional" producers and merchants while these have often acted as braking forces to the smooth implementation of livestock projects, policies, laws and regulations. Above all, past interventions, although rightly directed towards reducing the effects of diseases and drought, failed to do so. Therefore, the producer, who is risk-averse, had no choice but to reinforce herd reconstitution by minimizing the off-take of animals for meat production.

46. Society as a whole could not derive the maximum benefit from its livestock wealth and has had to bear the social costs in the form of increased degradation of the environment and desertification. In particular, the livestock sector contributed increasingly to the deterioration of the balance of trade and of payments of both importing and exporting African countries.

1. Characteristics and patterns of the African livestock sector

47. In measuring the performance, it is worth recalling some essential features of the livestock sector in order to avoid some misinterpretations of the indicators. Considering cattle for which more reliable data are available, less than 11 per cent were slaughtered for meat. Slightly more than eight livestock units were required to produce one metric ton of meat. The average age of slaughtered cattle was about six years; dairy milk production of cows was less than 3 litres (most often between 1.5 and 2.5 litres). The average mortality rate of cattle was around 11 per cent; the annual growth rate of the herd was estimated at 1.2 per cent. The productivity index, which is defined in this study as the sum of the growth rate of the herd and its off-take rate, averaged 12 per cent over the period 1972-1982.

48. When these indicators are compared with those of Western countries, it is often concluded that animal agriculture in Africa is characterized by low productivity, by large herds, and that the producer is backward and irrational. The last allegation may be true only if the objectives, the production activities, the resource base and the socio-economic environment of the African stockowner were comparable to the situation in developed countries. This, however, is simply not so. The majority of producers in Western countries strive to maximize profit from the sale of milk and/or meat subject to the availability of scarce resources, whereas African herders decide to keep larger numbers of animals of various types, sex and age as insurance against natural calamities and their impact.

49. Therefore given the varying objectives, the behaviour of both African and European stockowners is rational. But when the African stockowners are taken as a group, their aggregate behaviour constitutes a major constraint to the objectives of the society. In Western countries, the management of livestock and required resources such as feed and water are in private hands, whereas in Africa, while animals are privately owned and managed, the basic resources (forage and water) are usually communally owned and often free of charge in most pastoral areas and controlled, only to some extent, by the users and beneficiaries in areas of cropping and intensive production of meat, milk and eggs. Hence, the whole pattern of livestock production is governed by the availability of feed and water. Considering the ecological conditions in Africa, the acclimatization of exotic breeds becomes difficult and the animals can hardly express their full genetic potential. Consequently, still for a long time, until genetic engineering develops breeds that are adequate to prevailing environmental conditions, livestock production will have to rely on the better-adapted, though less-productive, indigenous breeds.

50. Owing to the differences in the objectives and strategies of the producers as individuals and as a group, as governments and as funding agencies, it is rather difficult to define a satisfactory set of indicators for measuring the performance of the livestock sector in Africa. However, the available statistical data on production, consumption and trade of livestock products over the past 10 years are analysed in the present study. The analysis is

based mainly on relative magnitudes and directions of change rather than on absolute values because data pertaining to the livestock sector must be regarded with serious reservations. The main source of statistical data has been the FAO computer print-outs and Yearbooks for Production and Trade.

2. Livestock population

51. The livestock population (cattle, buffaloes, sheep, goats, camels, pigs, horses and chickens) of the continent, estimated at about 221.5 million tropical livestock units in 1985, grew at an average annual rate of 1.3 per cent over the last decade. Considerable variations have been observed in the growth rates throughout the years and between animal categories and subregions. The distribution of the livestock population was skewed in favour of cattle and small ruminants over the period 1975-1985. Also, a large portion of the livestock population was concentrated in the Eastern and Southern African subregion (tables 1 and 2).

52. The cattle population of Africa was estimated at about 163 million in 1985 or 12 per cent of the world population. The annual average growth rate over the period 1975-1985, which was the same as that of the world, was estimated at 1.3 per cent. All subregions had an annual average growth rate above that of the continent except the Great Lakes countries (-0.5 per cent) and Eastern and Southern African subregion (0.2 per cent). In particular, the Central African subregion had double that of the continent. About 94 per cent of the cattle population in 1985 were concentrated in three subregions, namely Eastern and Southern Africa (55 per cent), West Africa (20 per cent) and North Africa (19 per cent) (table 2).

53. In 1985, Africa had about 19 per cent of the world's small ruminants. The average annual growth rate of sheep population was 1.7 per cent or 340 per cent of that of the world. Except in Central Africa, where the annual average growth rate was negative (-0.5 per cent), in all the other subregions it was more than double that of the world. The goat population of Africa (147 million head), which was about 32 per cent of that of the world, grew at an annual average rate of 1.2 per cent over the period under review. Except in the Great Lakes countries (1.7 per cent) and Eastern and Southern Africa (1.3 per cent), the annual growth rate was either negative (-0.5 per cent) in Central and West Africa or less than 1 per cent (0.6 per cent) in North Africa (table 2).

54. Africa had about 75 per cent of world camel population in 1985, with about 57 per cent in West Africa and none in the Great Lakes countries. The highest annual growth rate was achieved in the Eastern and Southern African subregion (3.1 per cent) and the lowest in Central Africa (-2 per cent) (table 2).

55. Non-ruminant production influenced by modern technologies grew more rapidly than that of ruminant production during the period under review. The pig population, estimated at 9.4 million head in 1985 or 1 per cent of that of the world, grew at 2.9 per cent per annum over the period 1975-1985. The highest growth rate was noted in North Africa (8.3 per cent) and the lowest in Central Africa. Less than 3 per cent of the world chicken population was in Africa in 1985. Except in Central and Eastern and Southern Africa, the annual average growth rate in each of the other subregions was much higher than that of the world.

3. Meat production

56. Although the annual changes in growth rate of the population of each category of animals are higher in Africa than in the world, the contrary is observed as for the productivity per animal. Indeed in 1985, the average productivity per livestock unit (cattle, sheep and goats) was 40 kg of meat in the world while it was half of that in Africa. In 1985, Africa had about 13 per cent of the world's total population of cattle, buffaloes, sheep and goats, but produced only about 7 per cent of the world's meat of these categories due mainly to low off-take rates and carcass weights.

57. Considering the differences in production systems and the socio-economic environment, in which the operators work, especially pastoralists, merchants, traders and butchers, the productivity gap existing between Africa and the world is quite understandable. 3/ However, every effort should be made to help fill the gap between the productivity in normal years and that observed during two to four years following a major drought. Indeed, the productivity of livestock, especially cattle, in terms of increased weight gain, improved health, shorter calving intervals and decreased mortality, is significantly much higher following a major drought. In particular, animals can be slaughtered at a younger age than normal and at near-record slaughter weights.

58. The total indigenous meat production in Africa was estimated at 6.3 million metric tons in 1985. About 61 per cent of total meat production in 1985 were beef and mutton. Over the period under review, the share of poultry in total meat increased from 13 to 19 per cent while that of pig-meat was maintained at about 4.8 per cent.

59. Over the last decade or so, total meat production grew at an annual average rate of 2.8 per cent which was slightly higher than that of human population. Spectacular growth was observed in the poultry subsector with 6.2 per cent on average per annum. However, a decline was observed in the growth rate from the period 1975-1980 (7 per cent) to 1980-1985 (4.4 per cent) perhaps due to difficulty in getting feedstuff for poultry consumption.

4. Trade of livestock products

60. The livestock imports of 45 countries in 1984 reached nearly $US 2,188 million against $US 633 million in 1975. The total livestock imports was growing at an average annual rate of 13.2 per cent over the period 1975-1984. Comparable figures for dairy and meat products were 10.4 and 21.0 per cent respectively. The North African subregion experienced the highest growth for both meat (27 per cent) and dairy products (13.4 per cent). Even in the major livestock-producing subregions, i.e., West Africa and Eastern and Southern Africa, meat imports grew at about 17 per cent per annum (table 4).

3/ See annex 2: Factors affecting the supply of meat in Africa.

61. Livestock exports fell from $US 161 million in 1975 to $US 112 million in 1984. More than 93 per cent of these proceeds were derived from the export of meat. Over the period under review, african countries have been faced with very strong competition from Latin American and Western European meat suppliers and most recently the United States. The trade deficit, estimated at $US 472 million in 1975, reached nearly $US 2,076 million in 1984.

5. Meat supply and use

62. The total supply of meat in 1984 (continental production plus imports) was estimated at 6.7 million metric tons which represented a 145 per cent increase compared to the level of 1975. Continental production of meat grew at an average annual rate of 2.8 per cent over the period under review. Although this growth rate was slightly higher than that of human population, it was not sufficient to offset the impacts of rising incomes. Therefore the import of meat in 1984 was six times higher than that of 1975 (table 3).

63. Africa was able to produce 102 per cent of its total consumption of meat in 1975. However, 10 years later, this percentage had decreased to about 93 per cent. The main reasons for the deterioration in the self-sufficiency ratio are due to inappropriate production and trade policies of African Governments that have even allowed unhealthy competition from non-African suppliers in the African meat market. Latin American exporters in the 1970s and those of the EEC countries in recent years became leading meat suppliers in virtually all subregions through trade distortions on the African market. For instance, the current refund on fresh beef carcasses was at ECU 1,425 per ton which amounts to about half of the domestic market price for slaughter cattle. Also, under the Export Enhancement Programme of the United States, considerable amounts of poultry have been shipped to Egypt with the help of subsidies equal to about the level of the free on board (f.o.b.) and return (FAO, 1986 a).

64. Exports of total meat in 1984 was estimated at 55,000 metric tons against 118,000 metric tons in 1975. Therefore, the export of meat grew at a rate of about -7.5 per cent a year over the period 1975-1984. Botswana, Kenya, Madagascar, Swaziland and Zimbabwe, which have been granted preferential access for limited quantities to the EEC beef market, have exported mainly to this area. However, EEC, Saudi Arabia and other Near East countries suspended imports because of the outbreaks of diseases especially rinderpest in Africa.

65. It is assumed that opening and closing stocks are equal and therefore apparent consumption is the sum of continental production and net imports. The total meat consumed was estimated at 7.1 million metric tons in 1984 or 156 per cent of that of 1975. Meat consumption grew at an average annual rate of 4.5 per cent over the period under review.

66. The composition of the meat consumed in Africa has changed significantly since 1975. Indeed the proportion of red meat has decreased in favour of poultry meat. The per capita consumption of meat varied between 18 kg for North Africa and 7 kg for the Great Lakes countries.

67. Since the increase in meat production was mainly due to the increase in the number of slaughtered animals rather than to the increase in carcass weight, one could conclude that the performance of government projects to expand output through improvement in yields was disappointing. The performance of the livestock sector was below expectations and this has been recognized by all parties involved, i.e., donors, recipient countries, producers and consumers.

III. LESSONS LEARNED

68. The African livestock sector is subject to some inconsistencies which make it difficult to derive the maximum contribution from its resources. First, the sector has the potential to develop from its inner strength but invariably and throughout the continent, Governments have chosen to depend on outside the producers' community, the nation and the region to develop their livestock sector. Livestock being a potential source for achieving food self-sufficiency and food security in a continent crippled by food crises, the allocation of resources for its development not only is insignificant but decreasing in real terms from year to year. While public funding is lacking in general and in a sector where operators can afford to pay for the inputs and services, African Governments made themselves fully responsible for the investments and the free supply of basic inputs and services especially at production level.

69. Secondly, despite the fact that sustained development of the sector even at national level calls for effective co-operation among neighbouring countries and that it constitutes a potential source for mutually profitable co-operation among producing and between importing and exporting countries, the Lagos Plan of Action did not have any notable impact on integrating African livestock economies. Paradoxically, while excess supply of slaughter animals and inputs exists in some countries, excess demand exists in others and Africa is increasingly dependent on meat suppliers from outside.

70. Thirdly, since 1980, it was evident that the African livestock sector was becoming less interesting for the international community. However, 28 countries had to depend entirely on the goodwill of the international community for the control and eradication of this most devastating cattle disease - rinderpest. No comprehensive solution has yet been found for the eradication of this disease which was reported on the continent for the first time in 1978.

71. Because of these inconsistencies, governmental efforts at developing the livestock sector, although commendable, have met with mixed and generally limited success. Governments, assistance and lending agencies, producers and consumers had unrealistically high hopes about what could be accomplished by following the developmental approaches that had been adopted. In fact, the efforts have not always measured up to the problems faced by the individual private operators at both production and trade levels and to the potential of the sector, especially if one considers that the average annual total resource flows (internal and external) to the sector were about $US 50 million and $US 124 million over the periods 1960-1975 and 1974-1983 respectively.

72. Assuming an average livestock population of 200 million livestock units per year, the average resource committed per unit would be only 25 US cents and 60 US cents over the period 1960-1975 and 1974-1983 respectively. Furthermore, if one considers that 70 per cent of the funds committed were spent on personnel, then the average non-personnel commitment per unit of livestock would have been 8 US cents and 19 US cents over the period 1960-1975 and 1974-1983 respectively. Since there is often a lag and even difference between commitment and disbursement of resources, it is easy to understand why public interventions in the sector did not bring any significant and lasting positive changes especially in pastoral areas over the last three decades or so.

73. Even in areas which are eye-catching such as infrastructure facilities and trained manpower, African Governments are facing great difficulties to use these services optimally. In the absence of provisions for amortization, much of the equipment is getting too old to be helpful and some require replacement. Since more than three-quarters of the national livestock budgets are for personnel cost, virtually no material resources are left to carry out the work. Also, many of the laboratories lack operating funds and therefore are unable to meet the standards of quality and demand requirements.

74. The International Monetary Fund (IMF) and others are currently very active to bring down personnel cost to a reasonable level either through early retirement and reduction of salary or freeze of recruitment in the public sector including the livestock sector. 4/ This prescription will not bring any lasting solution to livestock problems especially in pastoral areas if the current developmental approaches continue. In fact, one should not forget that if things were working properly, there would be shortage of staff whose development is a long-term process.

75. In any case, a few things became obvious in recent years. First, the confidence gained in the 1970s in the minds of donors began to decline in the 1980s as evidenced by the very limited success over the last five years or so to mobilize international assistance to launch a second Pan-African Rinderpest Campaign.

76. Secondly, while the terms of loans for livestock projects became harder, about 32 countries had to resort to the rescheduling of debts in the course of the past three years. This, of course, jeopardizes access to credit by African Governments in the international money market.

77. Thirdly, the major donors for livestock development in Africa are currently confronted by a series of problems in their livestock market. Indeed, the number of countries resorting to measures of enhancement of livestock exports has increased since 1980. These trade distortions have serious adverse effects on livestock development efforts in the region. Already, several countries in Africa have seen their livestock earnings falling due to massive export of meat and dairy products at highly subsidized prices in their traditional African and Near East markets; and dairy aid tends to develop markets for European rather than for African dairy suppliers.

4/ It is generally considered that an effective livestock service should spend about as much on other operational costs as on personnel cost.

78. Therefore, if past development trends were to continue, i.e., basic investment and supply of inputs and services were to be the responsibility of governments, very few of them, if any, would be in a position to maintain the level of interventions of the 1970s by the turn of the century. In fact, it will be illusory to think that countries from outside the region will assist Africa to find lasting solutions to all its livestock development problems as illustrated below.

The Pan-African Rinderpest Campaign: A case for reflection

79. Rinderpest is one of the three major infectious diseases in Africa, the other two being contagious bovine pleuro-pneumonia (CBPP) and foot and mouth disease (FMD). Rinderpest is an epidemiologically simple disease and very effective methods of control are available. Indeed, a single vaccine is effective against all field strains and it is possible to have life-time immunity from a single vaccination. The incubation period is short and signs of disease are readily apparent. In fully susceptible herds, the mortality may be as high as 90 per cent, but it may be 10 per cent where it is endemic, and associated with productivity losses. The price of a single dose in Mali and Senegal was less than 5 US cents in 1985.

80. Over the period 1962-1976, a joint programme of internationally co-ordinated vaccination campaign (JP15) covering 70 million head of cattle in 22 countries was executed (Tyler, 1984). The total cost was $US 14 million, with about 43 per cent paid by participating countries. Since the JP15 campaign was to control instead of eradicate the disease, follow-up actions by all countries at risk were required to maintain it at a reasonable level through yearly vaccinations, especially of calves.

81. However, African countries failed to implement the follow-up measures. Outbreaks of the diseases were then reported two years after the end of JP15 in Mali, Mauritania and Senegal which are all members of the Organisation pour la mise en valeur du fleuve Sénégal (OMVS), the Comité inter-Etats de lutte contre la sécheresse dans le Sahel (CILSS), the Communauté économique de l'Afrique de l'Ouest (CEAO) and the Economic Community of West African States (ECOWAS). Other foci were reported in the Sudan, in North Africa; and in Ethiopia, in Eastern and Southern Africa. Despite emergency control programmes in West Africa, about 33 countries are currently concerned directly or indirectly with it (see map attached).

82. Therefore, the need for a Pan-African Rinderpest Campaign (PARC) was recognized, and in 1981, the basis for its strategy was laid down. The OAU/IBAR, in close collaboration with the International Office of Epizootics (OIE), FAO and the EEC launched the idea of the project. Since then, a series of meetings took place and even the Assembly of Heads of State and Government of OAU adopted a resolution to this effect in July 1985. The strategy, whose implementation relied heavily on outside assistance, changed from eradication to control of the disease because the former, although technically feasible and highly desirable, was considered to be unrealistic by the donor community (EEC and the World Bank in particular) for various reasons. (OAU, 1986). 5/ Therefore, Africa had no choice but to depend on the goodwill of those who

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5/ Nigeria, the only African contributor to the PARC, provided the sum of $US 100,000.

could provide financial resources. As of today, the vaccination campaign will concentrate on five countries (Burkina Faso, Ethiopia, Mali, Nigeria and the Sudan) out of 28 countries at risk and 33 concerned.

83. In January 1986, EEC granted ECU 50 million which was formally signed with the OAU secretariat in June 1986 (OAU, 1986). As of now, preparatory actions including dialogue between EEC and African countries aimed at defining national livestock policies, appropriate measures and actions are still under way. The campaign will actually start only after the implementation protocols are finalized with the five countries and would be extended to any countries that successfully complete the dialogue.

84. While negotiations are still under way, cattle are dying throughout Africa. Although exact figures on losses are difficult to get, estimates of these, after the upsurge of rinderpest in West Africa (15 foci in 1978, 41 in 1981, and a general outbreak in 1982), were put at $US 300 million (World Bank, 1985). These losses for the sole subregion of West Africa represented more than six times the sum committed by EEC for the PARC.

85. In any case, the losses due to the disease are already several times higher than the cost of its eradication which was to vaccinate about 120 million head of cattle in 28 countries over 10 years. The PARC, based on the strategy of eradication, and financed mainly with external resources and therefore with foreign technical assistance and conditionalities such as awarding contracts to European rather than African institutions for research, would cost about $US 192 million with an average cost of $US 1.60 per unit (OAU, 1986). The losses estimated over the period 1978-1982 for West Africa were more than 1.5 times higher than the cost of the eradication campaign.

86. In addition to animal losses, African countries are having to cope with difficulties of access to meat markets foreign. For instance, Somalia, where livestock is the backbone of the economy, saw its export earnings dropping from $US 196 million in 1982 to $US 72 million and $US 35 million in 1983 and 1984 respectively. These losses were mainly due to the bans imposed on Somalia by its major importer, Saudi Arabia, because of the existence of rinderpest.

87. The case of the PARC calls for reflection on the part of the African Governments and people. There is no doubt that Africa could and would be better off in controlling the planning, execution and management of the Campaign by relying more on its own financial resources than entirely on those of the outside world. Also, there is no doubt that the eradication campaign based on greater self-reliance by African countries would be far cheaper per livestock unit and even much more effective. Africa has chosen to rely heavily on the outside world to control this disease, often called cattle plague because there is no effective translation of the principles of collective self-reliance set forth in the Lagos Plan of Action with reference to the livestock sector, by way of policy decisions and resource allocation. Clearly, there is a need to think over completely the whole approach to livestock development in Africa.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. Development of public policy research

88. In 1985, it was documented that policy inadequacies were at the heart of the disappointing performance of the livestock sector (ECA, 1985 a). In particular, it was stated that the wealth of technical knowledge for improving productivity and increasing marketing efficiency and the available, though limited, trained manpower were sufficient to exploit a great part of the production and trade potentials for substantial increase in output. To enable this mobilization to be undertaken successfully, there is a need for well-balanced policies, laws, regulations and accompanying measures to be implemented at both national and subregional levels. Above all, it is essential to redirect governmental interventions to help the sector to meet human needs now and in the future.

89. To arrive at this, it is necessary to develop an effective public livestock policy research. The aim of such research should be to evaluate the impacts of policy options on the performance of animal agriculture in meeting the objectives of production and consumption; environmental and other societal goals such as resource efficiency, distribution and equity of income. The design of optimum strategies and the setting up of adequate institutions should lead to the attainment of the goals.

B. At national level

90. Clearly there is a need to move from the current production curve to a new and higher one. It will be unrealistic to think that this will be possible without a change in the livestock environment, particularly in terms of land holdings and availability of livestock inputs and services and of consumer goods. Policies that will help to internalize cost of production and to foster sustained growth in the market of consumer goods and livestock inputs and services are prerequisites.

1. Land tenure 6/

91. Access to land is free, especially in pastoral areas which are very sensitive to drought and are subject to increased degradation of the environment. Availability of feed and water is a determinant factor in the livestock sector. Because of the land tenure policy, the producer is living at a pure subsistence level in terms of input use and access to services. As a result, it is difficult to plan production of inputs and outputs and to supply the market on a regular basis. All in all, the producers are not in a position to respond to market conditions and demand.

92. In fact, the tenurial rights that benefit the crop producer sector should be extended to livestock producers whose rights of access to use and control of rangeland and water resources, and the responsibility that go together with such rights in any of the land tenure systems, statutory or customary, should be regulated and clearly protected by the State. Reforms in the land tenure should evolve in the following directions:

6/ This section draws heavily on ECA (1985 a).

(a) Possession of communal land by small groups that would share livestock, financial and marketing services so as to benefit from economies of scale. The size of the groups should be such that the cost of reaching agreement among its members is low and that the risk of over-exploitation of land and water resources is minimal. The individual members of the groups should have the exclusive rights of use over their land while ownership rights would remain with the group as a legal entity;

(b) Individual tenure for production units that have large numbers of livestock to warrant having an individual piece of land;

(c) The creation of reserve areas as well as testing and public grazing of land at strategic sites. As in forestry, reserve grazing lands (RGL) are required to ensure the protection and conservation of the environment and to assist producers when, due to localized drought, there are failures on individual holdings. Testing grazing lands (TGL) should serve the research and extension institutions as a means of testing under field conditions. This should provide an alternative to conventional extension services in agriculture. The public grazing land (PGL) may play the role of regulating the markets of roughage, feeder and slaughter animals to maintain their prices within a satisfactory range. The PGL may be used for integrating on a large scale indigenous and new technologies to help close the gap between them. Joint ventures between private and public organizations, particularly in intensive production of beef, milk and feeds, should be encouraged on PGL;

(d) Careful planning and maintenance of cattle-trekking routes to markets based on the levy of charges; and

(e) Supplying, when necessary and feasible, water to producers at a cost.

2. Livestock services

93. The efficient operation of livestock services is essential to ensure sustained production of quality products. Thanks to international assistance, the basic requirements to have efficient livestock services exist in Africa. Laboratories exist to produce proven vaccines and to undertake diagnosis of diseases. Veterinary faculties and schools of animal science have the potential to supply the staff needs of the livestock sector; and research institutions exist in virtually all African countries. However, in many cases, these institutions are operating below capacity because of lack of operating funds and motivation of the staff.

94. Generally, livestock services are provided by governments free of charge. Past experiences had shown that very few African Governments, if any, can afford to supply free the services and inputs required by their livestock sector. It is therefore recommended to:

(a) Charge the total or partial cost of the livestock inputs and services to enable the producer to control the flows and especially their quality;

(b) Promote the production and distribution of vaccines and drugs by the private sector; and

(c) Promote private curative medicine and to sub-contract, whenever appropriate, preventive medicine to the private sector.

C. At subregional level

95. At the subregional level, there is a need to develop fruitful and dynamic co-operation to help achieve greater collective self-sufficiency in the production and supply of livestock inputs, services and products based on increased measures of self-reliance. In particular, collective actions are required to lessen the risks in production and supply and thereby to produce good quality meat and milk at competitive prices. In this era of trade confrontation among developed countries, especially to dispose of their excess supply of meat and dairy products, solidarity is required among African importing and exporting countries to minimize the effects of trade distortions on regional production and supply.

96. Collectively, efforts should be directed to ensure an optimal contribution of the sector to the realization of the African Common Market as called for in the Lagos Plan of Action. These will include:

(a) Harmonization of policies related to production, marketing, pricing and trade of major livestock inputs, products and by-products at subregional and regional levels; and

(b) Joint investment programmes between the private and/or public organizations in production and trade of major selected livestock inputs, services, products and by-products.

For the period corresponding to the implementation of Africa's Priority Programme for Economic Recovery, 1986-1990 (APPER), it is recommended to concentrate the efforts on the programmes discussed below:

1. Harmonization of policies related to pricing, marketing and trade of live animals and meat

97. Under this programme it is proposed to:

(a) Assess the protocols and accords related to the promotion of trade and marketing of live animals and meat and make proposals for their harmonization;

(b) Review the existing grading systems for live animals and carcasses, the value measurement systems of live animals and meat and make proposals for their harmonization;

(c) Review the collection of statistics and systems for the dissemination of information on live animals and meat and make proposals for their harmonization;

(d) Prepare a directory of major livestock and meat markets in the subregion and to identify two to five livestock markets per country to be fully equipped and to be part of a subregional livestock markets network;

(e) Prepare a directory of livestock and meat marketing institutions in the subregion and make proposals for better co-ordination and integration of their activities;

(f) Propose joint undertakings between private and/or public enterprises, especially in the areas of transport for live animals and meat, feedlotting, processing and marketing; and

(g) Organize meetings of live animal and meat pricing, marketing and trade officials who would be responsible for mobilizing the required resources based on increased measures of collective self-reliance and the implementation of the programme.

2. Promotion and strengthening of subregional co-operation in the production and distribution of major vaccines and drugs

98. The number of vaccine production laboratories will increase shortly from 22 to 26 in Africa. If appropriate actions are taken, these laboratories will be more than enough to satisfy the needs of Africa in vaccines. As for drugs, since the active ingredients of many human and animal medicines are the same, existing pharmaceutical laboratories that manufacture medicine for people could easily extend their activities to produce veterinary products. It is recommended to:

(a) Identify national vaccine-producing and diagnostic laboratories and centres that can undertake activities subregional in scope at both production and distribution levels; and

(b) Devise mechanisms such as joint ownership of laboratories and centres to ensure their effective operation based on collective self-reliance.

99. The need for such co-operation was fully recognized in the West and the Eastern and Southern African subregions. Laboratories have been identified and even designated as in the case of the member States of the Preferential Trade Area (PTA) to be subregionalized. In the absence of effective mechanisms, especially for financing, the identified laboratories are yet to implement their new mandate and role.

3. Promotion and strengthening of subregional co-operation in the control and eradication of major animal diseases

100. At the regional level, Africa is adequately staffed to undertake preventive care and has the potential to meet the requirements of vaccines at least for rinderpest and contagious bovine pleuro-pneumonia. In 1983, Egypt alone had more than two-thirds of all professional veterinarians in Africa with only one per cent of the cattle population. As stated earlier, diseases can be eradicated only through effective co-operation among neighbouring countries. Although the OAU/IBAR is actively engaged in mobilizing resources for the control and eradication of diseases in Africa, its efforts are concentrated towards attracting external resources and not mobilizing internal ones. After its limited success for the PARC, it is essential to devise mechanisms to control and eradicate diseases based on collective self-reliance. It is therefore recommended to:

(a) Harmonize policies related to the pricing and distribution of vaccines and drugs and to the performance of livestock services, especially in adjacent pastoral areas;

(b) Develop mechanisms for mobilizing subregional human, financial and material resources for the control and eradication of diseases in any member country;

(c) Eradicate rinderpest from Africa. In this connection, it is proposed to prepare a policy paper analysing the cost and benefit of eradicating rinderpest on the continent using two scenarios. In scenario 1 the programme would be financed mainly through the generous assistance of the international community while in scenario 2 the programme would be financed essentially by producers, governments and African financial and development institutions. It is suggested to inform the Assembly of Heads of State and Government of OAU about the findings of this study.

101. Actions should be initiated to develop regional livestock research networks and to strengthen Africa's livestock scientific and managerial capacity. The strengthening and the transformation of key selected national faculties of livestock into subregional institutions should be considered.

D. At international level

102. Although emphasis has been put on national and collective self-reliance in this study, international assistance will be still required to complement Africa's own efforts. It is recommended that the support of the international community be directed towards the availability of financial resources at highly concessional terms, developing appropriate trade arrangements and enabling Africa to achieve greater self-sufficiency in basic research.

103. The United Nations Economic Commission for Africa, on its part, has pledged to assist African planners in furthering their capability for public policy research and in developing subregional and regional co-operation in the livestock sector through:

(a) Continuous evaluation and monitoring of the performance of the livestock sector on the basis of the region and/or the ECA subregional groupings for Africa (MULPOCs) for a period of not less than five years. Such evaluation should be based on an analysis of the contribution of the livestock sector to the gross domestic product (GDP) and the balance of payments; an assessment of the supply and demand potentials of major livestock products, by-products and inputs, and a critical analysis of the major constraints to livestock development, especially policies related to land tenure, production, marketing, trading and pricing of major products and inputs and to the control and eradication of animal diseases. Such information is required for the identification and development of the animal and range resources and for organizing and managing production and distribution of inputs and products. Also such an evaluation is a critical factor in designing a consistent set of livestock development policies at subregional and regional levels and in formulating joint investment projects and programmes that would have the desired outcome;

(b) Identification of possible areas for harmonization and co-ordination of policies and actions for optimal exploitation of both supply and demand potentials of major livestock products, by-products and inputs within the subregion and the region. These policies and actions should lay the foundations for the attainment of the objectives of self-reliance and self-sustainment in the animal agriculture sector;

(c) Identification of joint investment opportunities within the subregion or the region between the private and/or public organizations in production and trade of major selected livestock inputs, services, products and by-products so as to help achieve individually and collectively self-sufficiency in animal food production and supply; and

(d) Playing a catalytic role for the effective implementation of the identified policies, actions and joint investment programmes for the development of the African animal agriculture, especially through meetings of high-level officials concerned with livestock research and development and of the policy organs of ECA and the MULPOCs.

RINDERPEST IN APRICA OVER THE LAST SIX YEARS

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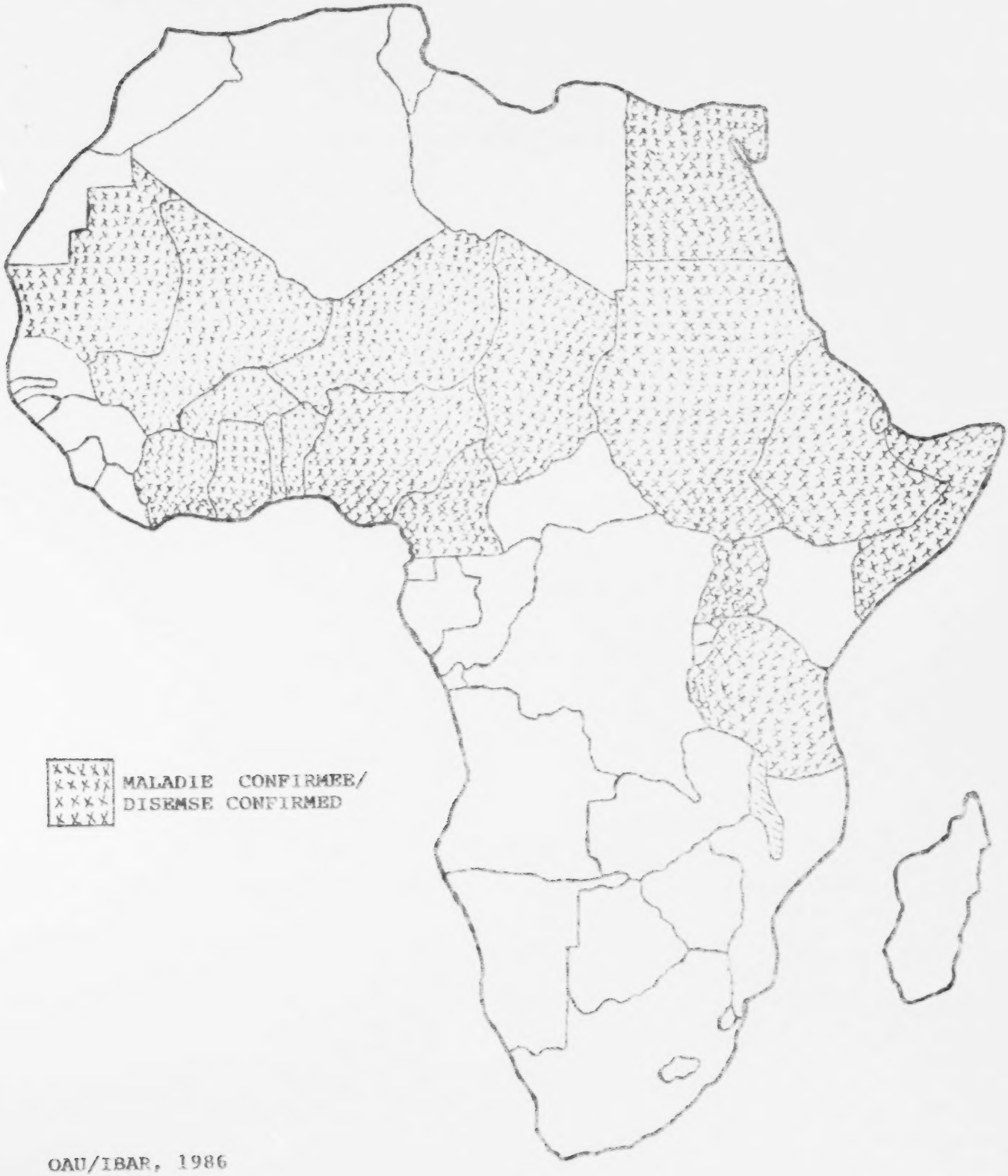

OAU/IBAR, 1986

Table 1. Subregional groupings

A. Central Africa (Gisenyi MULPOC)

Exporting country	Importing countries
1. Chad	1. Burundi
	2. Zaire

B. Central Africa (Yaounde MULPOC)

Exporting country	Importing countries
1. Chad	1. Cameroon
	2. Central African Republic
	3. Congo
	4. Equatorial Guinea
	5. Gabon
	6. Sao Tome and Principé

C. Eastern and Southern Africa (Lusaka MULPOC)

Exporting countries	Importing countries
1. Botswana	1. Angola
2. Ethiopia	2. Comoros
3. Kenya	3. Djibouti
4. Lesotho	4. Malawi
5. Madagascar	5. Mauritius
6. Somalia	6. Mozambique
7. Swaziland	7. Seychelles
8. United Republic of Tanzania	8. Uganda
9. Zimbabwe	9. Zambia

D. North Africa (Tangier MULPOC)

Exporting countries	Importing countries
1. Sudan	1. Algeria
2. Tunisia	2. Egypt
	3. Libyan Arab Jamahiriya
	4. Morocco

E. West Africa (Niamey MULPOC) or ECOWAS

Exporting countries	Importing countries
1. Burkina Faso	1. Benin
2. Guinea	2. Cape Verde
3. Mali	3. Côte d'Ivoire
4. Mauritania	4. Gambia
5. Niger	5. Ghana
	6. Guinea-Bissau
	7. Liberia
	8. Nigeria
	9. Senegal
	10. Sierra Leone
	11. Togo

Table 2. Cattle, sheep, goats, camels, pigs and chickens in 1985 (in thousands) and average annual change 1975-1985 (in percentage)

Subregion	Cattle		Sheep		Goats		Camels		Pigs		Chickens	
	Number of head	Annual change %	Number of head	Annual change %	Number of head	Annual change %	Number of head	Annual change %	Number of head	Annual change %	Number of head	Annual change %
Central Africa	8 928	2.6	4 412	-0.5	53 096	-0.5	421	-2.0	1 157	0.6	18 000	2.3
Central Africa/ Great Lakes	2 425	-0.5	1 464	1.2	4 688	1.7	-	-	950	1.8	22 000	4.2
Eastern and Southern Africa	89 313	0.9	49 482	1.1	58 514	1.3	1 629	3.1	3 460	4.2	205 000	2.2
North Africa	30 132	1.7	62 220	2.0	25 500	0.6	3 640	0.5	72	8.3	176 000	5.1
West Africa	33 208	1.6	38 890	2.5	5 154	-0.5	7 434	0.8	3 788	2.9	291 000	5.2
All Africa	164 006	1.3	156 468	1.7	146 952	1.2	13 124	0.9	9 427	2.9	712,000	4.1
World	1 398 217	1.3	1 121 993	1.5	459 960	0.9	17 440	0.7	791 471	1.4	8 287 000	3.2

Source: FAO production computer print-outs, 07/02/1986.

Table 3. Total production, consumption and trade of total meat, 1975-1984 (in thousands of metric tons)

	Total production		Total consumption		Net trade	
Subregion	1975	1984	1975	1984	1975	1984
Central Africa	213	231	209	270	4	-39
Central Africa/ Great Lakes	217	234	234	271	17	-37
Eastern and Southern Africa	1 810	2 240	1 722	2 234	88	6
North Africa	1 238	1 858	1 255	2 200	-17	-342
West Africa	1 138	1 700	1 172	1 742	-34	-42
All Africa	4 616	6 262	4 592	6 717	23	-456

Source: FAO Production and Trade Yearbooks, 1975 and 1985.

Table 4. Value of imports and exports in 1984 and annual changes (1975-1984) of meat and meat animals and all forms of milk products by subregions

Subregion	Imports				Exports			
	Meat		Diary		Meat		Dairy	
	Value millions	Annual changes %	Value millions	Annual changes %	Value millions	Annual changes %	Value millions	Annual changes %
Central Africa a/	49.52	7.8	51.74	8.3	22.00	-13.0	-	-
Central Africa/ Great Lakes	55.43	9.6	33.30	4.6	-	-	-	-
Eastern and Southern Africa b/	71.31	17.1	1 68.62	10.5	10 24.70	-2.5	25.40	-14.0
North Africa	5 03.50	27.0	8 39.83	13.4	15.90	-7.0	6.60	14.7
West Africa c/	1 30.80	16.8	2 83.17	5.5	14.20	-7.0	11.20	4.2
All Africa	8 10.56	21.0	13 76.66	10.4	10 76.80	-3.0	42.20	-9.5

Source: FAO Trade Yearbook, 1984.

a/ Excluding Equatorial Guinea and Sao Tome and Principe.

b/ Excluding Djibouti and Seychelles.

c/ Excluding Cape Verde.

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ANNEX

FACTORS AFFECTING THE SUPPLY OF MEAT IN AFRICA 1/

1. The major factors affecting the supply of meat in Africa are, in order of importance, the government programmes and policies at national as well as at subregional levels, the availability and cost of resources, particularly range resources and animal health services, in areas with comparative advantage in breeding, feeders and feeds in intensive production and cropping areas and technology.

2. The government programmes and policies as regards the livestock sector and related industries not only affect the cost of and revenue from livestock production, but also are significant variables in the behavioural equations of the producers, thus dictating the whole pattern of livestock production in Africa. However, it is worth mentioning that most of the government programmes were designed with minimal consultation with the so-called beneficiaries and partners who, therefore, often acted as negative forces. This is particularly true of the pastoralists (production level) and of cattle dealers and butchers (marketing level). These attitudes, compounded by the fact that the programmes must be funded largely by foreign aid, are all contributing factors to the poor performance of the African livestock sector in general and of government interventions in particular.

3. The provision of resources and services for public uses in the livestock sector without a proper code of use and the inability of governments to meet the demand for these resources has had adverse consequences on the delivery capacity of the producer, and hence on the output. In many countries, poor government interventions disrupted well-balanced traditional livestock production systems without bringing improvements and, as a result, producers are increasingly questioning the efficiency of governmental assistance. For instance, because of poor government interventions, particularly for water development and animal care combined with the frequent occurrence of drought, the transhumance technique is becoming less effective. The resulting natural reaction of the pastoralist is to reinforce the reconstitution drive with the consequence that the supply of meat is further affected.

4. There are several consequences of all these interventions on the production of meat. Firstly, the reconstitution constraints tend to place more emphasis on large populations of stock. Secondly, since in the livestock sector the operating costs in terms of cash are low and the transhumance or nomadism technique makes it difficult for the producers to take full advantage of the consumer goods and services available in areas with comparative advantage in cropping (ACAC) and in areas with comparative advantage in intensive production (ACAIP), the producer then sells animals only to satisfy the basic needs or subsistence requirements of his family. These sales are therefore inconsistent and inadequate for market demand. Consequently, less animals than potentially available will be offered for slaughter, draught power and fattening in ACAC and for fattening, finishing and dairy production in ACAIP. Furthermore, these factors tend to amplify the seasonal variation in weight gain to increase the mortality rate and to reduce the fertility rate.

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5. In Africa, the impact of pricing policies on output is much more complex than is generally thought. For instance, in many countries, the price of livestock is generally determined by the market forces while that of meat by retail level, particularly in traditional meat shops where it is often fixed by the government. In fixing prices, the government tends to favour urban consumers by protecting their purchasing power, and since most of these are civil servants and have low salaries the price set tends also to be low.

6. There are many implications of such a policy. The butcher, usually an expert in estimating the carcass weight of live animals, is inclined to purchase and slaughter only those animals which render some profit, and these are mostly old females. He purchases on credit, avoids applying the official meat prices and the quality specifications. When he slaughters average or better than average animals, the hindquarters are sold at a higher price to the modern butcher shops, or sold as barbecued meat for two or three times the price of fresh meat, regardless of quality (especially in the Sahel). As a result, the bulk of consumers eat less meat, for which they pay a high price in relation to its quality. When they turn to meat substitutes, this further results in a compression of domestic meat supply, which may or may not directly affect live animal exports. The local butcher who supplies modern butcher shops with low-quality hindquarters places the feedlot operator in a non-competitive situation. Therefore, unless there are export outlets, feedlot operations to improve meat quality and quantity may also be hazardous. Also, in the absence of any alternative outlet for butcher's meat, the strict application of low consumers' prices tends to lower the price of slaughter animals. Therefore, the producers are required to increase the supply of slaughter animals, thereby meat, to meet their fixed cash needs.

7. Stringent export regulations and administrative procedures adversely affect export of livestock and livestock products. In many African countries, figures for unofficial trade are several-fold higher than those of official trade. This affects the ability of the governments of exporting countries to plan effectively the development of their livestock sector, and places them in a poor bargaining situation with their clients. These procedures also tend to encourage trekking as opposed to trucking of animals between the exporting and importing countries. Therefore, the turn over of the capital investment of the merchant becomes lower while the risk of loss during transport becomes higher.

8. Some governments may set export quotas or even ban export of live animals. This generally happens after serious dry spells and is intended to accelerate herd reconstitution and to ensure meat supply for the domestic market. It is not proven that such decisions take into account the natural reaction of the herder during calamity periods. His herd is his only source of revenue and he therefore manages it accordingly, i.e., he achieves the necessary balance between the reconstitution constraint and the satisfaction of his household needs. In any case, the slaughter animals and meat for domestic and export markets are two distinct products. In actual fact, during the recovery period, the slaughter animals are more of export quality so that at the official retail price, the local butcher is not in a position to compete with the exporter. Therefore, the unofficial export of animals tends to increase.

9. Such bans were used in Mali and in the Sudan in the mid-1970s, but in both cases the result was below expectations, and the policy did more harm than good to the national economy in general and to the livestock sector

in particular. Indeed, such a policy did not only result in a loss of tax revenues, but it also created concern among the major clients of these countries. the natural reaction of importing countries was to increase domestic production for greater self-sufficiency and to diversify their sources of supply by turning to non-African sources of meat. The direct implications of the reaction of importing countries on livestock production are twofold. First, it makes it much more difficult to implement subregional programmes, which tend to preserve the comparative advantage of surplus countries in livestock production and foster intra-African trade. Second, it increases the competition for the limited funds generally made available for livestock development in Africa by donor and lending agencies, since the importing countries tend to increase their domestic production of meat.

10. In many livestock countries the national currency is not convertible. Thus livestock is used as a hard currency earner. Cattle traders are then expected to repatriate part or all of their export earnings to be authorized to export.

11. The impact of such a monetary policy is twofold. First, in the event that the exporters are allowed to import consumer goods and only repatriate a portion of the export proceeds in cash, then such a monetary policy may enhance the official export of livestock. This was the case in the 1960s in Mali when it left the CFA zone and created a non-convertible Malian Franc. In this event, the livestock sector could greatly benefit from such a policy. However, the exporters of animal were just importers of consumer goods and were not interested in investing in the production and trade of livestock so that only the export of animals from the traditional as opposed to the modern sector, and of animals as opposed to meat, was favoured. Second, when all the export proceeds are required to be repatriated, the tendency has been to smuggle out animals, especially unfinished, and smuggle in foreign currency and consumer goods. As a result, the government lost tax revenues, foreign currencies and the opportunity of exporting by-products such as skins, hides and finished animals. Also, there have been instances where the merchants in importing countries attempted to take advantage of the illegal exports by proposing less advantageous terms of trade to the merchants of exporting countries.

12. At subregional and regional levels, various organizations exist. These are the continental political organizations like the Organization of African Unity, three major economic groupings, namely the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS) and the Preferential Trade Area (PTA), which should result in the Economic Community of Eastern and Southern African States. There are also five Multinational Programming and Operational Centres (MULPOCs), which are the outreaches of the Economic Commission for Africa in each subregion (table 1 of the main text). All these organizations and institutions are useful instruments in achieving the African Common Market by the year 1990, and thereby the African Economic Community by the turn of the century, as clearly spelt out in the Lagos Plan of Action and the Final Act of Lagos.

13. Numerous resolutions and recommendations on the livestock sector were passed by various technical and political meetings of the above organizations and international agencies. However, few of these resolutions and recommendations have been transformed into concrete action by way of policy decisions, resource allocations and investment priorities both at the national

and subregional levels. The intergovernmental organizations (IGOs), either collectively or individually, have attempted to equip livestock and meat markets, livestock routes, to use a common livestock passport, to control or eradicate major animal diseases, to enter into agreements on taxation, movement of persons and goods, training of middle-level staff and livestock traders, to strengthen national institutions and restructure production, marketing and distribution activities. Efforts have so far been insufficient and results disappointing. The existence of too many IGOs (particularly in the West African subregion) led to a multiplicity of strategies and resulted in conflicting priorities for the livestock sector, which made it rather difficult for individual governments to take a clear course of action. In general, there is a lack of effective co-operation and co-ordination among the African IGOs. Also their efforts tend to be biased towards trade agreements to foster intra-subregional trade. Therefore, the required actions to support these agreements such as joint ventures in production and trade of livestock products and related inputs are often lacking. If the future can be judged by the past, the prospects for achieving collective self-sufficiency in animal products in Africa are not great.

14. The transfer of technology has been mainly concentrated on a small sector of the livestock industry, generally referred to as the modern subsector, using mainly modern inputs. In spite of the heavy capital investment in this subsector, at the expense of the dominant traditional sector, efforts have been limited to providing only a small portion of livestock products in Africa. The subsector is capital-intensive and deals mainly with the intensive production of beef, pig meat, poultry meat, eggs and milk that requires a higher degree of efficiency in management and a regular supply of inputs at least cost. The nature of livestock production and the dominance of conservative pastoralists and traditional producers makes it difficult to introduce new technologies or improve existing ones in the absence of well-designed extension and education programmes, linked with planned and effective research and development institutions. However, livestock development is a long-term affair requiring long-term improvement measures and prolonged action. Since all facets of livestock development are inter-related, a frontal attack is required and this is a costly exercise, especially when servicing widely scattered and small producers. With the limited resources of most African countries, these factors act as a major constraint to the introduction of technology in the absence of adequate financial and group action across countries.

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REPORT ON A SURVEY OF AGRICULTURAL RESEARCH AND PROGRAMMES FOR LIVESTOCK DEVELOPMENT IN THE AFRICAN REGION

Executive Summary

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1. Directly or indirectly, livestock resources play an important role in all strata of traditional and contemporary African societies and economies. In particular, animal products rather than cereals and roots and tubers are the main source of dietary energy supply for the population living in the areas most seriously affected by drought and desertification. Also, they are assuming an increasing importance in the diet of high-income and urban consumers.

2. The livestock population (cattle, buffaloes, sheep, goats, pigs, horses and chickens) of the continent, estimated at about 222 million tropical livestock units in 1985, grew at an annual average rate of 1.3 per cent over the last decade. The overall increase in total indigenous meat production of 3 per cent over the last decade, although keeping pace with that of human population, was insufficient to offset the impacts of rising income.

3. Despite the existence of great potentials at both production and demand levels, the efforts at development of the sector over the last three decades or so were not commensurate to the magnitude of the livestock problems and its potential. Indeed, on average less than 50 US cents were committed by and through African Governments per livestock unit per year over the last three decades. Therefore, Africa became increasingly dependent on the outside world to meet, not only its requirements for animal agricultural inputs, but also the demand for meat and dairy products of its rising human population. Over the period 1975-1984, the livestock products trade deficit grew at an average annual rate of 16 per cent, reaching nearly $US 2.1 billion in 1984 for 45 countries. Moreover, Africa was a net exporter of meat in 1975 but is a net importer of the same product today.

4. What are the basic reasons behind the poor performance of the livestock sector? A critical analysis of the sector reveals that policy inadequacies were at the heart of its disappointing performance. Indeed, governmental interventions tended to hamper the self-reliant, self-help and independent capability of "traditional" producers and merchants while these have often acted as braking forces to the smooth implementation of livestock projects, policies, laws and regulations. Consequently, the sector could not develop from its inner strengths and African Governments were forced to depend on outside the producers' community, the nation and the region to implement their livestock development strategies.

5. Since the share of African Governments in the total commitment of financial resources to the sector was less than one fifth, it was almost impossible to direct development at priority areas and therefore to sustain production. In particular, it was impossible to effectively implement the strategy by which governments made themselves wholly responsible for the basic investments and the "free" supply of inputs and supporting services, especially in the pastoral areas. In recent years, it became evident that only a handful of countries can afford the high cost of such strategy. There are even indications following the decrease in interest of the international community that many governments have increasingly found it difficult to maintain and fully operate the existing infrastructures and equipments and to use fully the already available trained manpower because of lack of financial resources.

6. Also, African Governments have emphasized national self-reliance and self-sufficiency in a sector where co-operation among producing countries and between them and deficit countries is imperative for sustained development. Indeed, because livestock production is characterized by the movement of both animals and their owners across national boundaries and of the existence of drought, ticks, tse tse flies and diseases which do not know political boundaries, livestock development efforts in one country may affect or be affected by what is done in adjacent countries or by the attitude of neighbouring governments.

7. Despite the adoption by all African Governments of the Lagos lan of Action in 1980, they failed to translate into concrete actions by ways of policy decisions and resources allocation, the principles of increased measures of collective self-reliance to help achieve greater individual and collective self-sufficiency in the production and supply of livestock inputs and outputs. Indeed, the effects of drought on the livestock sector are more pronounced in the 1980s than they were in the 1970s, and since 1980, Africa is crippled by rinderpest, the most devastating cattle disease. Also, while excess supply of slaughter animals and inputs exists in some countries, others import from outside the continent to meet their demand.

8. Clearly, there is a need to think over the whole approach to livestock development in Africa. This has been recognized by the ECA Conference of Ministers when adopting resolution 463 (XVIII) in 1983 calling upon the ECA secretariat to conduct, in close collaboration with FAO, perspective studies on livestock, evaluate progress, and formulate a specific approach to the development of this sector aimed at increasing its contribution to food and agriculture development. In response, a report on "Comprehensive policies and programmes for livestock development in Africa" was prepared and presented to the eleventh meeting of the Conference of Ministers. As a follow-up to this study, resolution 548 (XX), calling upon ECA to assist in harmonizing livestock development policies in Africa, was adopted. The present study, which is mandated by the ECA work programme for the biennium 1986-1987, is an integral part of the implementation of resolution 548 (XX).

9. Africa is currently faced with two choices. The first one is a continuation of the present trends in livestock development in the continent, i.e., over-reliance on outside world to finance the sector; minimal participation of so-called immediate beneficiaries to their own development; supply of basic inputs and supporting services by the public sector without a charge to users and without an appropriate code of their use; and weak subregional and regional co-operation at both production and trade levels.

10. The second choice is that of facing resolutely the constraints impeding livestock development through the evolution or revision of policies, strategies and programmes and implementing them in order to:

(a) Mobilize the resources, particularly relevant knowledge, experience, know-how to strengthen the self-help, self-reliant and independent capability of producers especially pastoralists, merchants, butchers, as well as veterinarians and other suppliers of inputs and services not forgetting the consumers of output from the livestock sector;

(b) Make efficient uses of animal and range resources throughout the continent;

(c) Create the appropriate framework for African countries to intensify collective efforts for greater self-reliance and self-sustained progress and development of the African livestock sector.

11. There is no doubt, especially following the adoption of Africa's Priority Programme for Economic Recovery, 1986-1990 (APPER) by the Assembly of Heads of State and Government of the Organization of African Unity in July 1985, that the choice is on the second one. It could not be otherwise without facing a deterioration in the per capita consumption of animal products and an increased negative contribution of the sector to the overall trade deficit of about $US 5 billion in 1990 and $US 23 billion by the year 2000 when the African Common Market and the African Economic Community are expected to become operational respectively.

12. The ECA secretariat pledged, on its part, to assist African planners in furthering their capability for public policy research and in developing subregional and regional co-operation in the livestock sector through:

(a) A continuous evaluation and monitoring of the performance of the livestock sector on the basis of the region, the economic groupings and/or the ECA subregional groupings for Africa (MULPOCs) and for a period not less than five years;

(b) Identification of possible areas for harmonization and co-ordination of policies and actions for optimal exploitation of both supply and demand potentials of major livestock products, by products and inputs within a subreigon and the region;

(c) Identification of joint investment opportunities within the subregion or the region between the private and/or public organizations in production and trade of major selected livestock inputs, services, products and by-products;

(d) Playing a catalytic role for the effective implementation of the identified policies, actions and joint investment programmes for the development of the African animal agriculture, especially through meetings of high-level officials concerned with livestock research and development and of the policy organs of ECA and MULPOCs.

13. The focus of the present study is on the first two parts mentioned above. First, an overview of livestock development over the last three decades is given, including an evaluation of the performance of African Governments to mobilize financial resources and of the livestock sector in terms of production, trade and consumption of livestock products and by-products. Secondly, lesson were drawn from past experience. Attention was drawn to some inconsistencies affecting the sector and to the Pan-African Rinderpest Campaign (PARC) which call for reflection on the part of policy analysts and decision-makers. Finally, recommendations were made directed towards more individual, national and collective self-reliance without denying the role of the international community to complement effectively Africa's own efforts at livestock development.

14. More specifically, it was recommended:

(a) To develop at both national and subregional levels an effective public livestock policy research with the aim of evaluating the impacts of policy options on the performance of the animal agriculture and thereby to help design optimum strategies and appropriate institutions to accomplish the desired goals;

(b) To create the basis for progressive and self-sustained development in the sector through making the operators, especially the producers, responsible for the development and management of the basic resources (water and pasture land) and enabling the producers to control the flows and quality of services and inputs.

(c) To consider individual land tenure and to encourage the formation of legalized small groups of producers who would have exclusive rights of use over a specific piece of land;

(d) As far as livestock inputs and services are concerned, it was proposed:

(i) To charge the total or partial cost of the livestock inputs and services to enable the producer to control their flow, especially their quality;

(ii) To promote the production and distribution of vaccines and drugs by the private sector; and

(iii) To promote private curative medicine and to sub-contract, whenever appropriate, preventive medicine to the private sector;

(e) To direct efforts at subregional level towards ensuring an optimal contribution of the sector to the realization of the African Common Market as called for in the Lagos Plan of Action (LPA) through:

(i) The harmonization of policies related to production, marketing, pricing and trade of major livestock inputs, products and by-products;

(ii) The promotion and strengthening of subregional co-operation in the production and distribution of major vaccines and drugs;

(iii) The promotion and strengthening of subregional co-operation in the control and eradication of major animal diseases;

(f) To redirect the assistance of the international community towards the availability of financial resources at highly concessional terms, developing and maintaining appropriate trade arrangements and enabling Africa to achieve greater self-sufficiency in basic research;

(g) To prepare a policy paper on the eradication of rinderpest in Africa based on two scenarios: Scenario 1 in which the programme would be financed mainly through the generous assistance of the international community; while in scenario 2 the programme would be financed essentially by producers, governments and African financial and development institutions.

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REPORT ON THE IMPLEMENTATION OF THE RECOMMENDATIONS OF THE WORLD CONFERENCE ON AGRARIAN REFORM AND RURAL DEVELOPMENT IN THE LUSAKA-BASED MULPOC SUBREGION

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ACRONYMS USED IN THE TEXT

APPER	African Priority Programme for Economic Recovery 1986-1990
CIMMYT	Centro Internacional de Mejoramiento de Maiz Y Trigo (International Maize and Wheat Improvement Centre)
FAO	Food and Agriculture Organization of the United Nations
IBAR	Inter-African Bureau for Animal Resources
ICIPE	International Centre for Insect Physiology and Ecology
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFAD	International Fund for Agricultural Development
ICADD	Inter-Governmental Authority for Drought and Development
ICA	International Co-operative Alliance
IITA	International Institute for Tropical Agriculture
ILCA	International Livestock Centre for Africa
ILO	International Labour Office
ILRAD	International Laboratory for Research on Animal Diseases
LPA	Lagos Plan of Action, 1980-2000
PTA	Preferential Trade Area (PTA) for Eastern and Southern Africa
SADCC	South African Development Co-ordination Conference
UNESCO	United Nations Educational Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNEP	United Nations Environment Programme
UNFPA	United Nations Fund for Population Activities
UNIDO	United Nations Industrial Development Organization
UNDP	United Nations Development Programme
WFP	World Food Programme
WHO	World Health Organization
WCARRD	World Conference on Agrarian Reform and Rural Development

IMPLEMENTATION OF THE PLAN OF ACTION OF THE WORLD CONFERENCE ON AGRARIAN REFORM AND RURAL DEVELOPMENT (WCARRD) IN EASTERN AND SOUTHERN AFRICA

INTRODUCTION

1. The World Conference on Agrarian Reform and Rural Development (WCARRD) was held in Rome from 12-20 July, 1979. The Conference adopted a Declaration of Principles and Programme of Action as well as a Resolution on the follow-up action by the lead agency FAO and other UN organizations. The Declaration of Principles and Programme of Action was endorsed by the ECOSOC and the United Nations General Assembly in the same year. Member Governments declared that the objective of agrarian reform and rural development is the improvement of rural life and activities in all their economic, social, cultural, institutional, environmental and human aspects. National objectives and strategies to achieve this goal, it was declared, should focus on the eradication of poverty, including nutritional and health improvements, and be governed by policies for attaining growth with equity, redistribution of economic and political power, and people's participation in decisions affecting their lives.

2. National governments committed themselves to take actions not only for land distribution, raising rural incomes and employment, food production and nutrition, but also for the provision in rural areas of minimum levels of safe drinking water, family planning, primary health care, housing, education, access to roads, communications, and for increasing the proportion of public expenditure on such utilities and services.

3. The purpose of this report is to examine the past and current patterns of rural development in Eastern and Southern Africa and assess the extent of their contribution towards the fulfilment of the goals and objectives of WCARRD.1/ The focus is on policy and structural reforms which have a bearing on rural development, equity and alleviation of poverty.

4. As WCARRD encompasses complex, broad and interdisciplinary activities it will not be possible to provide a comprehensive assessment. The aim of the exercise is to appraise ECA Member States on actions taken and progress made in rural development; and particularly in the eradication of poverty which is the primary goal of WCARRD, and to provide opportunities for exchanging country experiences on agrarian reform and rural development.

5. The report focusses on progress in the following areas:

(i) Access to land, water and natural resources;

(ii) people's participation;

1/ The report relied heavily on WCARRD mission reports. Comments and suggestions made by the Human Resources, Institutions and Agrarian Reform Division (ESH) of FAO have been very useful in the writing of the report. The Economic and Policy Analysis Division (ESP) has been extremely helpful in providing logistic support and relevant information. Their contribution is gratefully appreciated.

(iii) integration of women in development;

(iv) access to technology, inputs, markets and credit services;

(v) development of non-farm activities;

(vi) health, education and nutrition; and

(vii) agency activities in support of the implementation of the Principles of WCARRD.

6. This report is called for by the Work Programme for the biennium 1986-1987 of the Economic Commission for Africa (ECA) on Food and Agriculture in Africa as approved by the United Nations General Assembly.

REVIEW OF NATURE OF THE PROBLEM

7. During the 1960's and 1970's developing countries as a whole achieved remarkable progress in overall economic development. Growth in Gross Domestic Product (GDP) by the Least Developed Countries exceeded 5 percent per annum, the target set by the United Nations for its First Development Decade. Growth rate in GNP by the Third World countries averaged about 4.6 percent per annum.

8. However, the same cannot be said about Africa. During this period overall growth rates in Sub-Saharan Africa stagnated, and food and agricultural productivity actually deteriorated. As indicated in Table 1, Africa was the only continent which experienced a negative growth rate in per capita agricultural, food and cereal production during the 1970-1976 period.

9. In their attempt to remedy the situation, African countries adopted policy measures, often with expatriate advice and supported and encouraged by donors, which essentially accentuated the pre-independence biases.

10. With the steady increase in human population and livestock numbers the pressure on land increased. Traditional methods of cultivation and resource management failed to cope with the new situation. Land degradation emerged as a critical problem which led to more frequent droughts. With the break-down of the traditional systems, a landless class of farmers appeared; land rents increased and the situation of tenants became insecure. As a result of these unfavourable developments a class of impoverished rural population emerged.. Furthermore, the deterioration in the quality of rural life and the growing disparity between rural and urban incomes led to a mass exodus of the adult male population to the cities and across national borders in search of a better life. The migrants, who were usually less educated and less qualified technically, could not compete for more secure and better paying urban jobs and, as a result, they joined the urban poor and the slum dwellers. Women, who were left behind, had to provide for the family but were ill prepared for their new role.

11. After two decades of experimentation and lost opportunities, the African governments begun to question the wisdom of past development strategies. Growth models uncritically accepted at the time of

independence and afterwards had clearly shown their inappropriateness. Evidently, there has been little progress in economic development and improved standard of living to show for all the efforts and resources (both domestic and external) invested. In actual fact, African countries found themselves worse off than they had been more than twenty years previously, particularly as concerns food and nutrition.

12. The World Conference on Agrarian Reform and Rural Development was a response to these unfavourable developments: the failure of development efforts over two decades of independence to fulfil the needs and aspirations of the African population.

Overview of Structure of Production in Eastern and Southern African countries

13. The Eastern and Southern African subregion 1/ has 27 percent (756.7 million hectares) of the land surface of the African continent; 30.7 percent (137.4 million) of the total population in 1980; and only 15.4 percent of the GNP (1982). GNP per capita averaged US$ 340 (in 1982) compared to a continental average of US$ 677 (FAO, Atlas of African Agriculture, 1986). Thirteen of the eighteen countries experienced decline in per capita GDP ranging from 0.7 to 8 per ent per annum between 1980 and 1983 (seven of them by more than 2 percent).

14. The economies of these countries are primarily agricultural. On average, about 40 percent of their GDPs originate from agriculture (Table 2); with the exception of Zambia and Zimbabwe, between 75 and 99 percent of their export earnings originate from this sector (Table 3). In spite of the considerable efforts of industrialization, not much progress is discernible in this sector. In Botswana, the share of industry increased from 19 to 45 percent (primarily because of the discovery of precious metals) and, in Malawi, from 13 to 18 per cent, while in Zambia the share of industry declined from 40 percent in 1965 to 26 percent in 1984. In all the other countries it remained stagnant. Manufacturing remained small and relatively stagnant in most of the countries. Services make up a significant proportion of the GDP's of many countries, but they too remained stagnant during the period 1965-1984.

15. On the other hand, the subregion has the fastest growing population in Africa. Between 1970 and 1980, eleven countries experienced average annual growth rates exceeding 3 percent and, in four of these countries, it exceeded 4 percent (FAO, Atlas of African Agriculture). These are, there is no doubt, alarming growth rate by any standards. At this rate the population will double in less than 25 years. Although, on average, the man/land ratio is still low, some countries are already experiencing critical arable land problems. Urbanization is also taking place at a high rate (6-7 percent per annum). These growth rates, coupled with the young age of the population in many of the countries, have important implications on the provision of employment and social amenities.

1/ Angola, Botswana, Comoros, Djibouti, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Seychelles, Somalia, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

Rational for a focus on rural development

16. Inadequate income, malnutrition, poor health, low literacy rate, high infant and child mortality are some of the important dimensions of rural poverty. Although data on incidence and nature of poverty is limited one thing is clear, that poverty is endemic and critical in rural areas of Africa.

17. That rural development should take precedence over other development endeavours is a pre-ordained fact. Eighty to ninety percent of the population of Eastern and Southern Africa lives in the rural areas, struggling for bare subsistence; hunger, malnutrition, disease, ignorance, and social and economic injustice prevail here. However, moral justification alone is not the reason for emphasis in this area, the economic justifications and the political imperatives are even more compelling and convincing. Rural development may bring the following economic benefits:

(i) Creation of employment for the rapidly increasing popoulation: Industrial growth is slow and in fact stagnant. The growing young labour force must find employment and sustenance in agriculture, particularly the labour intensive small-scale farming sector. In this area the development of small-scale labour intensive farming in countries like Kenya and Malawi can provide a lesson.

(ii) Reduction of food imports: Reducing food imports would release scarce foreign exchange for the importation of industrial inputs and machinery essential for growth and development.

(iii) Expansion of domestic market: In Africa, urbanization is still very low. Expansion of purchasing power of the rural mass is therefore the only way to achieve this objective.

(iv) Expansion and diversification of export opportunities: The development and expansion of intensive small-scale farming provides good opportunity for diversifying exports.

(v) Discouragement of rural-urban drift: Improvement of rural life is one of the sure means of reducing this high influx of people.

18. Obviously, the most important resources the poor countries have, are their people and their land. The rational utilization and mobilization of these vast resources is a pre-condition for the development of sustained and self-reliant economies. In rural development, the cardinal objective is the mobilization of rural-based resources and the development of self-reliant communities.

19. Another important aspect of rural development is the expansion of rural industries. Among other things, this will increase the supply of goods and services to farmers at costs much lower than urban based industries can produce them. Such developments are essential for the creation of a dynamic rural society. In addition, rural based industries have several advantages. They are: labour intensive (low capital/labour ratio) conditions; family and community savings which could be mobilized; the creative potentials and entrepreneurial capacities existing in rural areas which could be exploited.

WCARRD OBJECTIVES AND TARGETS

20. WCARRD called for stepped up reforms of institutions and rural development policies and urged governments to undertake the following reforms:

(i) promote rural institutions and people's organizations;

(ii) undertake structural reforms; and

(iii) increase the commitment of resources to the agricultural sector.

21. This section looks at some of the reforms and achievements in the target areas of WCARRD. In assessing achievements one has to appreciate the daunting social, economic and political problems these countries have been burdened with (persistent drought, recession in developed countries, rising debt service, decreasing foreign exchange earnings and escalating prices of industrial inputs etc). These setbacks have forced the countries to rearrange priorities and shift manpower and resources away from long-term developments towards overcoming the emergency. These problems overstrained the fragile and weak economies. Now the emergency has subsided, the preoccupation has been towards the rehabilitation of the devastated economies.

22. While this may have slowed down reforms, the crisis has, on the other hand, demonstrated the plight of the rural poor and the special problems and vulnerability of small-scale farmers, women and children in a dramatic way, and has reinforced the call to reduce the vulnerability of these groups to such setbacks.

Political Will to Further the Aims of WCARRD

23. There is at present, more than ever, a heightened awareness, at the highest level of African leadership, of the critical economic situation facing Africa and the primacy of agriculture.

24. This concern has been demonstrated in the adoption of the Lagos Plan of Action in 1980 for the Economic Development of Africa, 1980-2000 and recently the African Priority Programme for Economic Recovery (APPER) 1986-1990 by the Twenty First Ordinary Summit of the OAU. The aims and objectives of both these documents are harmonious with those of WCARRD. By

adopting the above documents, the African leaders have committed their respective governments to taking appropriate measures, individually and collectively, to transform their economies and to enhance agricultural productivity. This conviction is embedded in the following paragraph of the APPER:

> "... the development of our continent is the primary responsibility of our Governments and peoples. We are, therefore, determined to take concrete actions and measures individually and collectively for the achievements of the economic development of our continent in unity and solidarity of African people's and member states".

25. At the subregional level, the creation of SADCC, PTA and IGADD for the promotion of cooperation in agriculture and allied areas is a further testimony of the seriousness of this commitment.

National Development Plans

26. Although the gulf between plans and plan fulfillment is well known, plans, nevertheless, provide important information on government priorities in the pursuit of economic development and the means by which the objectives are to be attained. A number of National Plans were examined to see if they reflect the spirit of WCARRD. The latest plans do, indeed, give high priority to agriculture and the attainment of food self-sufficiency in contrast to earlier plans which were urban biased with focus on infrastructural development. The reduction of rural-urban income disparities are integral components of most plans. Furthermore, most plans recognize the importance of participatory democracy.

27. For example, the Fourth National Development Plan of the Government of Kenya (1979-83) had poverty alleviation as its main theme. Poverty was to be attacked in four major fronts, viz:

(i) the creation of income-earning opportunities;

(ii) the redirection of expenditures in favour of the poor;

(iii) the provision of other basic needs such as nutrition, health care, basic education, water and housing; and

(iv) institutional building and reforms.

28. However, a review of some national plans indicated that the countries are yet to develop and elaborate coherent and comprehensive rural development strategies envisaged in WCARRD. Nonetheless, the plans have the essential elements of rural development such as priority to agriculture, reducing rural-urban income gaps, food self-sufficiency, self-reliance, health and education facilities.

29. After examining the country submissions on rural development plans and strategies, an FAO sponsored International Workshop on Designing Rural Development Strategies (1985) made the following observations:

> "...there was very little relationship between policies, programmes and projects in horizontal terms (sectors) and in vertical terms (local, regional and national levels). Where there was a horizontal inter-relationship as seen in some integrated rural development projects, such was very limited, as these projects were often islands unto themselves, bearing little relationship to other rural and non-rural projects under the national development plan. In these cases, the integrated rural development projects were enclaves very similar to the export-oriented primary producing activities, with little significant forward and backward linkages".1/

30. However, on the whole, MCARRD mission reports indicate the following shortcomings in national plans: (i) lack of specified targets; (ii) lack of strategy as to how targets will be achieved; and (iii) lack of process through which progress can be assessed.

Progress in key areas of MCARRD

31. Access to land and water and natural resources: Agrarian reform is a fundamental question that many governments had to consider before they could embark on long-term rural development activity. In rural Africa, land is not only the most important factor of production, but for millions living in rural areas it is the basis of their livelihood and survival. For the privileged few, it means power, prestige and wealth and is an instrument for exploiting others. Without land reform it is hardly possible to achieve any meaningful rural development and transformation.

32. Land reform can take various forms depending on the objective conditions existing in each country: it could be nationalization of land with or without compensation and distribution to those who cultivate it, improvement of landlord tenant relationships, improvement of tenure conditions, consolidation of fragmented holdings, changes in inheritance laws or transfer through sales, collectivization, settlement, conservation etc.

33. However, to produce the desired benefit land reform has to be combined with other policy reforms which facilitate the provision of inputs, marketing of output at remunerative prices, provision of consumer goods etc. Otherwise, land reform could result in reduced output and standards of living, as amply demonstrated in a number of countries which had adopted fundamental land reform measures.

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1. FAO, Report on the International Workshop on Designing Rural Development Strategies, 2-7 December, 1985, Ibadan, Nigeria, P.12.

34. In traditional communities, customary arrangements operated adequately to ensure access to land, water and other natural resources and maintain harmonious relationship between exploitation and conservation of land and water resources. But with increasing pressure from human population and livestock and commercialization, the traditional systems were unable to meet the growing problems.

35. In a number of countries in the subregion traditional systems still prevail. In such situations land is controlled by customary laws and access is gained on the basis of customary laws. The issue of landlessness rarely arose for men. But for women the same customary laws that gave men access to land, deny them this opportunity. Women get access to land and water and other natural resources only through their husbands. Traditional systems also pose some critical problems to development which are rarely recognized.

36. With respect to development problems associated with customary land tenure and traditional administration, the Lesotho WCARRD Follow-up Mission Report is very instructive. The Lesotho case is discussed here not because it is unique, but to illustrate common problems of the system. The problems indicated were: 1/

(i) land is administered according to traditional needs and not according to development priorities, resulting in excessive fragmentation, overstocking and overgrazing, with resultant land degradation;

(ii) constraints to overall physical planning, management and use of land according to essential economic and social criteria, for shared but scarce resources;

(iii) the breakdown of the village chief's control over communal grazing has created further problems for land management and land use planning;

(iv) the village chief's rights and control have impeded the emergence of community control and development of this shared asset, through people's participation and appropriate local institutions; and

(v) since use rights revert to the community after harvesting, the incentive to manage and develop the land is adversely affected.

37. In many nomadic societies, the common ownership of land, combined with the private ownership of livestock grazing on it has brought about the phenomenon known as the "dilemma" of the pastoralists. Here there is a conflict between the individual interest to field more animals and the social interest to avoid degradation of pasture land by limiting the number of animals to the land's grazing capacity. Thus, land reform in pastoralist communities is becoming a vexed question.

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1. FAO, Kingdom of Lesotho: The WCARRD Follow-up Inter-Agency Mission, 1982, P.7.

38. In recent years, a number of countries in the subregion have adopted reforms of one kind or another. An FAO-sponsored Government Consultation on the Follow-up of WCARRD, held in Harare, Zimbabwe, (1985, has reported on initiatives taken by certain countries in land legislative acts and regulations, with the objective of giving small farmers access to land and/or of avoiding fragmentation of available farm lands. In some cases, countries had all agricultural land vested in the State, while allowing the farmers to use this land according to customary rules and regulations. The report also indicated that some countries felt that land distribution was not of immediate need, while others had applied measures of land reform in a gradual manner.

39. Two countries which introduced fundamental reforms in land-human relationships are Tanzania and Ethiopia. In Tanzania, the Arusha Declaration on socialism made land public property to be administered by the Ujamaa villages while, in Ethiopia, the Rural Land Proclamation of March 1975 nationalized all rural land and introduced a system of use rights which set a ceiling of 10 hectares per household and abolished tenancy. Administration of land was left to Peasant Associations established by the same Proclamation.

40. Tanzania is well known for its egalitarian political philosophy and innovative rural development programmes. Since the Arusha Declaration, it has moved first to establish the Ujamaa villages and then to implement the villagization programme which involved the settlement and resettlement of the scattered population into demarcated villages known as development villages. It also set up village government institutions through which people can participate in their own development.

41. The Tanzanian experiment, keenly followed by many, brought various benefits in terms of social and infrastructural services but, according to many observers, failed to bring about the desired overall economic development and standard of living for the rural population. The WCARRD mission indicated that communal farming, which is the cornerstone of the socialization, has shown very little progress so far, accounting for only 1 percent of the total cultivated area. Agricultural production has declined over the years, in spite of the huge investment made in agriculture and related activities.

42. The thrust of Tanzanian rural development policy is:

(i) primacy of agriculture;

(ii) local management and self-reliance; and

(iii) socialist mode of production based on Ujamaa villages.

43. However, in spite of the slow progress so far achieved in terms of overall economic development and improved standards of living for the people, the foundation has been laid for a great leap forward in future. In fact, the WCARRD mission feels that Tanzania is already beginning to feel the "positive effects" of its past reforms and investments.

44. The objectives of the Ethiopian Government are:

(i) accelerated growth with equity and the elimination of inherited inequalities and exploitation of man by man;

(ii) eradication of poverty, hunger, disease and illiteracy;

(iii) the building of a strong and self-reliant economy.

45. Rural transformation is the cornerstone of its development activities. To carry out the implementation of reform, various community (people's organizations) and public institutions have been created. Socialization of agriculture is the primary vehicle of rural development. To this effect the Government has, since 1985, been actively encouraging and supporting a programme of settlement and villagization. In addition to the obvious advantage in terms of the provision of services, villagization is expected to facilitate rationalization of land use, enhancement of soil and water conservation activities and promote socialization of agriculture.

46. In Ethiopia, a radical change has taken place in land-human relationships, but complementary policy changes have not been introduced to enhance agricultural productivity. For instance, the supply of improved inputs and credit, particularly to small farmers, seem to be slackening; agricultural research has not so far produced suitable packages, particularly for small farmers; and the price structure leaves a lot to be desired. There is thus no doubt that these policy shortcomings have undermined the egalitarian land reform and have contributed to the slow progress in agricultural productivity.

47. In Zimbabwe, emphasis has so far been on cooperativization, particularly in the resettlement farms, and on the provision of credit. Reports indicate that favourable policies in the area of pricing and input supply have greatly encouraged the production of surplus food from the small farm sector in recent years.

48. The Lesotho government introduced a Land Act in 1979 designed to redress inequalities and remove obstacles to the development of agriculture.1/ According to the Land Act, allocation is to be made by a Lands Allocation Committee chaired by the chiefs. The Act also encouraged development of land through a system of leasing provisions. But the mission felt that land allocation still leaves room for bias towards the more powerful in the rural areas, and that the provision of leasing arrangements work out to the disadvantage of the rural poor who may be bought out of their meagre holdings by the more powerful and resourceful farmers.

49. People's Participation: The lack of grass root participation in the development, implementation and evaluation of development projects is considered to be one of the important reasons for the poor performance of past development efforts. As a result, the need for people's participation in social, economic and political decisions that affect their lives is receiving increasing support and attention. Governments are developing the necessary institutional framework to make this a reality.

1/ Ibid, pp. 8-9

50. Since it is the farmers themselves who make the final decision on whether to institute a change in their farming practices or not, the logic of involving them in the formulation of the plan and its implementation is inescapable. But people's participation is a complex and intriguing issue. It requires resource and organizational capacity to make it work. Farmers, both men and women, need to be organized into viable groups. They have to be educated and assisted in their new role; and development agents too have to be educated to accept the new relationship.

51. All the countries visited by the WCARRD Follow-up Mission have indicated their readiness to institute policies and practices to enhance people's organizations through which genuine participation could take place. Already, in many countries, government and administrative decision making and planning machineries are being decentralized and people's organizations such as cooperatives, credit unions, women's and youth organizations, etc, are being encouraged and actively supported. The "bottom-up" approach to planning is getting support.

52. Planning from "below" is essentially a process which will help to better identify and understand the following components of a plan:

(i) identification of available resources at the local level;

(ii) identification of available manpower and skill;

(iii) identification of socio-economic and technical constraints;

(iv) more precise determination of the needs and priorities of particular target groups;

(v) identification of risks farmers face and how they confront them;

(vi) identification of production opportunities and alternatives which exist at the village level; and

(vii) consideration of past village experiences in productive activities.

53. This approach to planning involves a close partnership between the planner and the intended beneficiaries. Their roles are complementary. Planners know things which farmers do not know, while farmers have essential and key information which planners do not possess but which is nec essary for good planning. For this relationship to operate harmoniously, however, a change of attitude is required of both partners.

54. The missions observed that many governments have established some machinery to decentralize decision making and enhance people's participation. To mention just a few: in Somalia, regional councils, district councils and village committees are in a position to ensure people's participation in self-help development activities; in Zambia, the Government has planned to establish village development centres; in Ethiopia, attempts are being made to decentralize decisions to the Peasant Association level.

55. Tanzania has set up one of the most extensive systems in Africa to enhance people's participation and promote grassroot democracy. Regional government authorities are given the responsibility for local planning and implementation. Plans are discussed and worked out at the village level, and submitted to the District Development Committee (DDC). The DDC makes an appraisal and sends the proposal to the District Executive Committee of the Party for final approval, before it is submitted to the Region.

56. In many countries, the rudimentary elements are being put in place to further the objective of people's participation. But so far, even in Tanzania where the system seems to be advanced, observers indicate that al decisions are made at the top and handed down. 1/

57. Access to Inputs, Markets and Credit Services: The aim of agrarian reform is to bring about rural transformation by creating a dynamic rural society. One component of this transformation is land reform which, to be effective, must be combined with institutional and policy reforms to facilitate the flow of productive resources into the rural economy. Thus easy access to improved inputs, markets, credit and other services become an essential components of rural transformation. To increase agricultura productivity, inputs must be available at the right time, place and price. Research has demonstrated that use of improved inputs (seed, fertilizer, irrigation, implements etc.) and practices (rate of seeding, planting dates, weeding etc.) can increase yield considerably. The "Green Revolution" in Asia and Latin America was facilitated by the presence of such services. Africa failed to experience anything like the "Green Revolution" partly because these pre-requisites were not there.

58. In most of the countries of the subregion there is a marked dualism between commercial farms which use high level technology and small-scale farmers who use very few improved techniques or none at all. Table 4 shows the use of fertilizers in Eastern and southern African countries. As shown in the table, the quantity of fertilizer applied on non-food and export crops is by far higher than on food crops. For instance, in Ethiopia only 3 kg/ha of fertilizer nutrients is used on food crops compared to 28 kg/ha on export and non-food crops; in Tanzania, the figures were 2 kg/ha and 31 kg/ha respectively. In Zimbabwe, export and non-food crops used 267 kg/ha while only 37 kg/ha have been applied on food crops. In Kenya, 20 kg/ha were used on food crops compared to 34 kg/ha on non-food crops.

59. The use of improved inputs is constrained by various factors,including weak delivery systems, unavailability of credit, lack of recommended packages suitable for small-scale farmers (a weakness of the research services) and lack of incentives for farmers to use improved practices.

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1. FAO, Review of Rural Development Strategy and Policies, United Republic of Tanzania: Report of the High Level WCARRD Follow-up Mission, 1981, pp. 32-33.

60. Agricultural Research: During the colonial period, research activities were organized mainly on the basis of major export commodities (cotton, ground nuts, cocoa, tea, coffee etc.) covering large geographic areas. After independence, the existing infrastructures were neglected and each independent State tried to organize its own research facilities. Experience since then has shown that a critical mass of scientific staff and resources are necessary to build an effective agricultural research infrastructure. Therefore, agricultural research has lapsed in many countries. Transfer of technology from other regions did not prove feasible. National agricultural research activities focussed on variety trials, fertilizer trials, and cultural practices such as time of planting, plant density, and the like. In general, research ignored food crops and continued to concentrate on export crops. Farm-tested recommendation are rarely available, and research recommendations are often too global to be of any benefit to specific geographic locations with specific micro-climatic conditions and soil variation. Socio-economic research is generally weak.

61. In his Transforming African Agriculture, 1986 Carl Eicher provides a very critical review of agricultural research in Africa. He maintains that African Agricultural Research has not given sufficient attention to basic research in the long-term interest of agricultural development. Historically, universities and other educational institutions contributed a great deal to long-term research and the expansion of the frontiers of knowledge. Unfortunately, in Africa, university research generally lack focus. Research continuity, which is important in basic research, is generally lacking. Admittedly, funding is also sporadic and inconsistent.

62. A number of International Agricultural Research Centres (IITA, CIMMYT, ICRISAT, ICIPE, ILRAD, ILCA, IBAR) are at present working in Eastern and Southern Africa on both long and short-term agricultural problems. Their research efforts have produced significant advances. But the impact at national levels have so far been minimal.

63. Recently the governments of the subregion established their own regional organizations (SADCC, PTA, IGADD). ECA and FAO are collaborating in assisting the Member States establish a subregional maize research network.

64. National agricultural research institutions are making concerted efforts to re-orient research towards food crops. For instance, in this subregion, maize, sorghum and millet and beans are receiving considerable support. But more research is needed on roots and tubers which are important food items, on pulses, disease resistance, pest resistance, drought tolerance, crop association (mixed cropping) and on socio-economics.

65. A World Bank report,1/ indicates that Africa is outspending both Asia and Latin America on research as a proportion of GDP and in expenditure per scientist (Table 5). The Bank report maintains, , however, "that most of the cost of research has been financed by donors and as a result they shape research policies, institutions, and practices, often without adequate national involvement".

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1. World Bank, Financing Adjustment with Growth in Sub-Saharan Africa, 1986-90, Washington, D.C., p.33.

66. The development of appropriate technology is vital in the development of agriculture. No country has developed its agriculture without strong agricultural research systems and associated services such as extension, credit, marketing etc. However, in many developing countries technology development and transfer, to small farmers in particular, is weak and inefficient. Technologies adaptable to local ecological conditions and socio-economic and production patterns are not available.

67. The link between agricultural research and extension has been found to be very much wanting in many countries. This has made it difficult to develop technology that is relevant to small farmers (men and women). Feedback on farmer responses has been difficult to get while, on the other hand, extension agents are unable to get access to relevant and valid technological packages. This calls for more intensive dialogue involving researchers, extension personnel, farmers and other rural development institutions (both men and women). Recent years have evidenced determined moves to improve approaches to extension services. More emphasis is being given to group contact and participatory approach. But progress is hampered by the inadequate, ill trained, and unmotivated extension agents, and shortage of finance and facilities.

68. Agricultural credit: There is evidence that, due to lack of security and frequent inability to repay loans, the volume of loans advanced to small farmers have been very limited. Furthermore, loans advanced constitute mainly, if not exclusively, short-term loans, limiting the opportunity for small-farmers to invest in long-term improvements.

69. In Tanzania, for example, the mission observed that in 1976-77 about 68.4 per cent of the loans were made for seasonal inputs and, of the 8,000 villages, only 1,080 villages were covered.

70. In Ethiopia, under the minimum package programme - Phase II (1977/78 -1980/81) - an average of 15.9 million BIRR (US$ 7.8 million) was advanced to small farms (average about US$1.3/household). The repayment rate averaged about 75 percent 1/. The available statistics also indicate that 80-90 percent of the loan advanced by the AIDBANK goes to State farms and the rest to cooperatives mainly on short-term loans (seasonal). State farms and cooperatives produce only some 10 percent of the agricultural output.

71. An important factor prohibiting access to credit by small farmers is the need for security. Lending institutions consider small farmers particularly risky. The risk factor is aggravated by lack of location specific input packages and the frequent occurence of drought. The WCARRD mission to Somalia recommended the introduction of crop insurance (possibly on a trial basis) to guarantee reasonable income to small farmers in the event of crop failure.

72. With respect to problems associated with credit, the various missions observed that credit institutions are badly organized and fragmented, and duplicate each other's activities. The rationalization and streamlining of credit organizations has been recommended.

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1. Teka, T. and T. Nichola, Rural Forestry Alleviation: The Case of Ethiopia, FAO, Rome, 1984, p.71.

73. Agricultural Marketing: Available evidence shows a general trend to improve agricultural incentives by raising agricultural prices and enhancing the efficiency of the agricultural marketing systems. At present many governments control agricultural prices through the various parastatal and marketing boards. Some parastatals are given monopoly purchasing power for specific commodities.

74. For instance, in Somalia it was revealed that:

> "failure to monitor and adjust systematically these prices with rising costs to retain an incentive element and ensure appropriate price differential between crops has led to a sizeable parallel market in the food trade and a consistent decline in Agricultural Distribution Corporation (ADC) intake limits." 1/

The same is true of other countries where price control has been introduced without adequate mechanisms for monitoring supply and demand movements and for making necessary adjustments.

75. With respect to export commodities, the monopoly purchase by parastatal organizations and marketing boards coupled with government fiscal policy operate against the interests of farmers. In many cases farmers are paid a very small proportion of the export prices (f.o.b.). For instance, tobacco farmers in Malawi and Tanzania were paid less than 50 percent of the border price during the late 1970's and early 1980's (World Bank, p. 65). In Ethiopia, coffee farmers received only 29 percent of the border price.

76. In spite of the foregoing problems, a clear and general trend towards improving incentives for food crop producers has been evident. According to the World Bank report, this has come about through increasing official prices in conjunction with devaluation, as in Zambia, or deregulating markets to give farmers access to higher prices on the parallel market, or introducing more flexible systems of official markets as in Tanzania, where the price of maize has been doubled between 1979 and 1985. There are also moves by some countries to allow more room for the free market.

77. A critical issue with respect to marketing is the role of parastatal organizations. Experience in a number of countries indicate that parastatals suffer from poor management and inadequate financing. To cover their costs, parastatals often inflate their marketing margins at the expense of farmers, or they are subsidized by the Central Treasury putting heavy burden on the State. Some parastatals are also known to have increased their profits by keeping farm gate prices low.

78. Integration of Women in Development: WCARRD considers the recognition of the vital role of women in the socio-economic life of a country to be a prerequisite for successful rural development, and calls on Governments to consider action to ensure: (i) equality of legal status; (ii) women's access to rural services; (iii) women's organizations and their participation in development projects; (iv) education and employment opportunities.

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1. FAO, Somalia: Report of the High Level WCARRD Follow-up and Lagos Plan of Action Strategy Review Mission 1982, p.5.

79. In Africa, women make up more than 50 percent of the agricultural labour force and in southern Africa, where men migrate to the cities and to the Republic of South Africa to work in the mines, women make up 60-70 percent of the agricultural labour force. In Uganda, 60-80 percent of the labour force in food production is provided by women. Yet men remain the effective custodians of land. Because of competition from export crops, women's access to land is restricted and they have become more dependent on men. Generally, the production, processing and marketing of food crops is the domain of women, and hence the importance of women in food security.

80. Although this division of labour by sex exists, women and men engage in complementary and mutually reinforcing activities. However, in spite of the overwhelming importance of women in food production, past governmental and international efforts to improve agricultural productivity and restore self-sufficiency in Africa have totally ignored the needs of women. Recent interventions in research, extension, credit, marketing, irrigation etc., have focussed on men even when they are not food producers.

81. Six classical misconceptions concerning the role of women are identified by Jennie Dey as follows: 1/

"(i) The household is often assumed to be a homogenous unit in which the (male) household head controls all labour, assets and income and makes all major decisions on social and economic matters;

(ii) Household heads are stereotyped as male despite the fact that many widows and divorcees are household heads (30-40 percent in SADCC);

(iii) Women's domestic roles are typecast as their primary role even though rural women perceive themselves as performing multiple, interdependent but equally important domestic and economic roles;

(iv) There is increasing awareness of women's roles in food production, processing and preparation for household consumption...diverted attention from women's equally important income-earning activities...

(v) Women's contribution to household food crop and livestock production results in their being identified as unpaid family workers. The rigidity of this stereotyping on the basis of only one of women's multiple roles, precludes adequate recognition of their parallel roles as on-account farmers and business women, or as wage labourers;

(vi) ...women in some Muslim countries do not engage in economic activities... may mask an active trade in processed or cooked foods operated from their homes, with children delivering goods or selling them in the market place."

1/ Dey J., Women in Food Production and Food Security in Africa, FAO, 1984, p.10-12.)

82. In recent years, the crucial role of women in food production in addition to their traditionally recognized role in household activities seems to be accepted. This heightened awareness has prompted actions at national and international levels to bring women into mainstream development, and to provide support in their multiple roles as producers and providers. The food and agricultural crisis which engulfed most African countries in the 1970's and 1980's has no doubt encouraged the governments of Africa and donor agencies to focus on women in their assistance programmes aimed at increasing food production.

83. Like WCARRD, the Lagos Plan of Action, which provided the framework for the long-term development of Africa (1980-2000), recognized the vital role of women in the effort to achieve food self-sufficiency and called for more research on women's role in food production and to establish and strengthen women's units in Planning Ministries.

84. There is evidence, that in Eastern and Southern Africa that this heightened awareness is being reflected in government activities and in important documents, and considerable gains appear to have been recorded particularly in the spheres of political and social life.

85. In Ethiopia, for instance, the continuing Government support to women to become full partners in social, economic and political life has been noted. But, "despite gains made, much remains to be done, with fewer positive achievments to date in economic than in socio-political development". There are indications that emphasis has been more on home economics, health and literacy, than other specific activities critical for women's development.

86. "Women's activities and needs are not recognized as fully as they might be and as women are reported to want them. Peasant Associations, services and producer's cooperatives do not presently provide opportunities for as active a participation of women as their socio-economic contributions to rural life warrant. Women lack access to membership, land, credit and training for productive activities".1/

87. In Lesotho government aid programmes are reported to be giving support to women. The Government document "Blue Print for Action - Agricultural Development 1980" urged donors to pay special attention to utilizing women's potential for development. However, the mission observed that women's right to own land is limited; furthermore, of the 25,000 Credit Union members, few women are in decision-making positions.

88. In Somalia, considerable progress has been reported in legislations to accord women equal rights in all spheres of life, i.e. maternity leave, improvement of working hours for mothers who have to nurture thir infants, establishment of kindergarten and nurseries for the children of working mothers.

89. In spite of the considerable progress already achieved in terms of legislation, women's organizations, literacy etc., a lot remains to be done. In many countries, women's crucial role in food security is yet to be fully recognized, and government interventions (i.e. research, extension, credit, marketing, training) are yet to accord priority to foodcrops and to women as the main actors in this field.

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1. FAO, Ethiopia: Report of the High Level WCARRD Follow-up Mission, 1982, p.4.

2. Kingdom of Lesotho, WCARRD Mission, p.45.

90. FAO has focussed its activities to enhance women's participation in food production and rural development. The action programmes include:

(i) organizing workshops and seminars;

(ii) launching a programme called "Women in Food System" (WIFS) aimed at strengthening rural development policies and support services reaching rural women engaged mainly in food production;

(iii) "Programme for Disadvantaged Rural Women" (CADRW) aimed at assisting female plantation workers, women in settlement schemes, women refugees, women-headed households, women-

(iv) launching a global consultation on women in Food Security" has been organized.

...ficient agricultural knowledge, most countries ...ndicated that the natives had at ...so was lost in the ... colonial structure of ... and ... was regained most ... government machinery ... in all areas of ... the priority of ... technical manpower ...

... the interests of the ... services at all. To ... needs of African ...

... countries have achieved ... and they have also claimed the ...

... the pursuit of the ... for both men and ... and objectives of WCARRD.

... In many countries ... primary education is now ... universal ... the goal of many countries. Table ... enrolments achieved between 1965 and 1982 and ... are indicative ... have been continuing. As shown in the ... the male/female ... inequalities. In spite of the ... WCARRD missions report ... inequalities between urban and rural areas and between male and female. For instance, ... it is indicated that a very small ... of those ... primary school proceed to ...

secondary school, and few children from nomadic families attend school. In spite of compulsory primary education in Mozambique, enrollment of children between the ages of 6 and 14 did not exceed 40 percent and, because of a high drop-out rate, only 10 percent reach fourth grade 1/. Rural and urban registration shows 27.5 and 62.5 percent respectively, and less than 1 percent of rural children proceed to secondary school.

97. In Lesotho, 70 percent of the children in the primary school age group were enrolled in 1980 but, of one thousand pupils enrolled in standard 1, only 370 (37 percent) reached standard 7. 2/

98. The emphasis on adult education and literacy campaigns has paid off handsomely in many countries. For example, in Tanzania, consistent effort has produced a 90 percent literate population in 1980, with progressively increasing equality between the sexes. In Ethiopia, the literacy rate has risen to more than 60 percent over a span of less than 10 years compared to 10 percent during the previous regime.

99. There is also a considerable shift of emphasis in the subregion in the type of education from academic to practical and vocational training. The emerging pedagogic concept is education for self-reliance and development; the emphasis being on education for the masses. In spite of the emphasis on education for rural development, there is a strong feeling that the type of education is encouraging rural youngsters to abandon rural life. The prevailing attitude is that children go to school to escape from rural life and this is what parents desire for their children, justifiably so, in light of the existing gross inequality between urban and rural social facilities.

100. The special problem of providing education for children of nomadic families has been one of the important issues. Although this question arose in connection with Somalia's nomadic population, the issue is very relevant and pertinent to all countries where nomadic pastoralism exists (Botswana, Djibouti, Ethiopia, Kenya, Tanzania). It is emphasized that an appropriate education system should be tailored to fit the context and needs of nomads. Using radio as a means of communication with nomadic pastoralists has been suggested. There is a need for a detailed analysis of this issue, clear-cut and consistent policy, and national commitment to the education of nomads within a comprehensive strategy of education.

101. Regarding education, the World Bank 3/ maintains that in recent years enrollment has been decreasing and that the quality of education is deteriorating in Sub-Saharan Africa. The report further indicates that the annual public cost of higher education is almost $3,000 per student - eight times higher than the cost in Asia and almost double that in Latin America.

1/ FAO, Report of the WCARRD Follow-up Inter-Agency Mission to Mozambique, 1984, p.40.
2/ Kingdom of Lesotho, WCARRD Mission, p.51.
3/ World Bank, Financing Adjustment, p.30.

102. Health, Nutrition and Sanitation: In general, health conditions have improved dramatically in Sub-Saharan Africa since independence. Governments have given the development of health infrastructure high priority. Most of the countries subscribe to the Alma Ata Conference (1979) which gave high priority to preventive medecine and the active participation of the local community in its own health care.

103. Although improvement in health is satisfactory compared to other areas of development, Africa is still considered to be behind in health infrastructure, particularly with respect to rural areas. In fact, in certain cases it has been reported that facilities are deteriorating due to lack of maintenance, loss of manpower and inadequate finance. For instance, it has been observed that, by 1982/83, infant mortality in Uganda had climbed to an estimated level of 130 per thousand live births compared to 110 per thousand in 1969. Recognizing this problem, the Ugandan Government has given high priority to primary health in its Recovery Programme.

104. The Ethionian Government has adopted progressive policies for improved primary health care, with the aim of encouraging preventive medicine and rural areas, working through the structure of people's organizations with emphasis on self-reliance. However, in spite of the effort of the Government, some health indices show the existing poor health conditions. For instance, in 1980-85 infant mortality averaged 172 deaths per thousand live births (Table 7). The same is true of Angola, Malawi, Mozambique, Somalia, and Swaziland. In Mozambique, half the health budget goes to Public Health Care. Despite this emphasis, however, the mission observed the existence of high maternal and child mortality; poor coverage of maternal and child care; a high prevalence of malnutrition, anemia, infectious and parasitic diseases; poor average vaccination activities; high mortality and morbidity rates as a result of measles; and poor coverage of the health network and poor water supply.

105. A rural poverty study 1/ conducted in Ethiopia indicated the prevalence of communicable diseases closely associated with the poor water supply, a generally poor degree of sanitation, poor personal hygiene and lack of vaccinations. The report also indicated that in spite of the effort of the Government to the contrary, health facilities are still urban biased.

106. Referring to a study by UNICEF and WHO, the World Bank report sited above 2/ concluded that, in Sub-Saharan Africa, childhood immunization levels are the lowest in the World: polio 32 precent, measles 35 percent, tuberculosis 41 percent, and diptheria, pertussis and tetanus 33 percent; whereas, according to the report, an immunization level of about 80 percent is generally considered necessary to control the transmission of these diseases. According to the report, immunization levels have actually deteriorated in many countries in Africa (in the subregion in question, Zambia and Tantania are among those with deteriorating immunization levels).

1/ Teka, T. and T. Nichola, p.23.
2/ World Bank, p.28.

107. Nutrition problems are very acute in almost every country in the subregion. The already poor conditions were exacerbated by the food crisis of 1983-84 when most countries experienced persistent drought for 3-4 years (Angola, Botswana, Ethiopia, Mozambique). The per capita dietary energy supply actually deteriorated in 10 of the 15 countries for which data is available (Table 8). In 1984, the daily dietary energy supply was less than 95 percent of the average requirements for 6 out of the 15 countries and 4 of these countries were so close to or below the critical level of 1,800 kcal per day.

108. Sanitation and Water Supply: The importance of sanitation and a safe water supply are clearly recognized. Regrettably, however, in every country the situation is considered to be extremely poor. It has been revealed that both water supply and sanitation standards are very low in rural areas. In Ethiopia, it was estimated that only 3-4 percent of the rural population is getting clean and safe water while, in Tanzania, the population getting safe water is estimated at 41 percent of the total rural population in 1979-80.

109. Non-farm activities: In some countries, non-farm activities are making substantial contributions to rural income and employment. In Kenya, about 43 percent of smallholder income is currently derived from non-farm activities 1/. In Tanzania, around 20 percent of rural household income is said to be generated by non-farm activities. A diversified rural economy, not only in agriculture proper but also in agriculture-related industries such as processing, preserving, packaging, pressing oil etc., and in trade and services, is a condition sine qua non for the creation of a dynamic and self-reliant rural economy. Production of agricultural implements and consumer goods required by the farmers, expansion of services such as small rural shops, trading services whereby farmers can obtain agricultural inputs and purchase consumer goods etc. are essential elements of rural development.

110. To do this, rural people have to be trained and retrained in various skills such as carpentry, masonry, mechanics, shoe repair, tailoring, weaving etc. The need for an organized credit is obvious. A critical problem in the development of rural industries is marketing. Proper marketing and input supply arrangements are needed.

111. Non-farm activities can be promoted through incentive schemes such as easy loans, tax holidays, improved access to raw material and other inputs, and improved marketing schemes and training programmes. However, not many countries have given this sufficient attention. In Tanzania, the development of agro-based industrial linkage to benefit the rural population is being actively promoted.

112. Other types of non-farm activities are intensive rural works programmes such as soil and water conservation, afforestation and reforestation, feeder road construction, construction of dams etc. In some countries, effective use is being made of WFP assistance in this respect.

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1. Government of Kenya, National Development Plan, 1979-83.

113. The creation of non-farm employment opportunities has special importance and significance in the BLS countries where, in future, migrant workers may be forced to stay at home. In Lesotho, at present, 128,000 migrants are estimated to be working in the Republic of South Africa. Due to increasing restrictions by South Africa, this figure is expected to be reduced by 15,000 by the end of the Third National Development Plan Period (1980-1985) and by approximately 60,000 by the year 2000. New jobs have to be found in agriculture, as well as in the domestic non-farm activities for these returning migrants and new entrants into the labour force. The same is probably true of Botswana and Swaziland. All Mozambican nationals working in South African Mines etc. have now been ordered to return home and these must be resettled in Mozambique. In these particular circumstances, th training and rehabilitation of returning migrants assumes special significance.

AGENCY ACTIVITIES IN SUPPORT OF THE IMPLEMENTATION OF WCARRD

114. In adopting the Declaration of Principles and Action Programmes, the WCARRD Conference requested the appropriate United Nations agencies, with FAO as lead agency, to assist Member States in, inter alia: (i) monitoring and evaluating agrarian reform and rural development; (ii) analyzing and disseminating information; (iii) providing technical assistance in the implementation of the Programme; and, (iv) mobilizing resources.

115. In response to this request, the UN agencies concerned - with FAO as lead agency - have been taking actions to harmonize their programmes with WCARRD and to assist Member States in the formulation of their rural development strategies. Poverty-related programmes have received particular attention since WCARRD, and efforts to achieve rural development have been intensified. The report of the ACC Task Force on Rural Development, 1985, indicates that UN agencies such as ILO, UNIDO, UNEP, UNFPA, WFP, IFAD, WHO, UNESCO, UNICEF, the World Bank, UNDP, and the Regional Commissions (ECA in this case) have all been sharpening the focus of their programmes for the alleviation of rural poverty, and continue to give more emphasis to disadvantaged groups such as small farmers, women, farm labourers, pastoralists, artisanal fishermen, etc.

116. ILO, for instance, is continuing its anti-poverty programme with major expansion in the area of women and people's participation; WHO has reoriented its programme to support Member Countries convert the joint WHO/UNICEF concept of Public Health Care into reality. UNESCO's "Education for all" and WHO's "Health for all" are further demonstrations of this enhanced emphasis on the rural poor. UNESCO's rural press and radio programme also have the rural poor as their focus. UNIDO has focussed its programmes on industrial development activities to benefit the rural poor.

117. UNFPA has placed greater emphasis than before on the coordiniation of population and rural policies and on their integration with national development plans; UNEP's programme on environmental protection, particularly in marginal areas where poverty is acute and endemic, is another example of the concentration on anti-poverty programmes in consonance with WCARRD.

118. IFAD was actually established with specific mandate of supporting the poor, and its programmes have been reflecting this mandate. In 1985, according to the ACC Task Force report, 52 percent of IFAD's total loans went towards assisting Sub-Saharan African countries, and its Special Programme for Sub-Saharan Africa, aimed at restoring agricultural production, is receiving increasing support.

119. Invariably, all international agencies now give particular emphasis to people's participation considered to be one of the most essential elements in ensuring the viability and sustainability of rural development projects. For instance, the World Bank indicated that 65 percent of its projects approved in the 1985 fiscal year were developed using different types of farmers' participation. These provided basic information on the socio-economic, cultural and demographic characteristics of the beneficiaries, the organization of productive activities, and the projects' cultural compatibility with the behaviour and needs of the beneficiaries.

120. Further examples of the support given and commitment to people's participation are: WFP's guidelines for differentiating the target groups by socio-economic category and by sex, with a strong accent on consultation at the grass-root level; ILO's various activities involving worker education, non-farm employment, income-generation , and the improvement of the managerial capacity of small enterprises; FAO's credit and savings participatory projects, and training of government cadres for participatory planning at village level; and WHO's community involvement in health development.

121. IFAD is developing "operational modalities" to put the concept of people's participation into practice. UNDP has launched a "grassroots initiative fund" to finance projects identified by local communities. A pilot multi-agency integrated participatory village development project has been initiated in Zimbabwe.

122. Traditional women's savings clubs have been used by FAO in Kenya and Zimbabwe to identify and provide support services.

123. Several agency projects now have women as the major beneficiaries. IFAD's report indicates that 52 percent of its programmes identified women as explicit beneficiaries in 1984, compared to only 10 percent in 1978.

124. Integrated WFP projects, combining nutrition, income and employment generation, skills training, access to resources and services such as potable water, fuel and health facilities have women as the major beneficiaries. So do FAO's integrated agricultural development projects in several countries, as well as the various women's programmes such as self-help participatory projects under the programme for Community Actions for Disadvantaged Rural Women, the inter-divisional programme testing energy saving technologies for rural households, and the projects on improving women's access to credit, banking and marketing.

125. Projects in the fields of functional literacy, population nutrition and family health, with the focus on women, are being implemented by UNESCO, UNFPA, WFP and WHO.

126. The Economic Commission for Africa has been one of the leading institutions in Africa in advocating policy reforms to revamp agricultural productivity in accordance with WCARRD principles and strategies. Policies that have long been undermining agricultural productivity have been the subject of various meetings and seminars sponsored by the ECA individually, or in collaboration with other agencies such as FAO. ECA's biggest contribution has been in the area of institution building to promote inter-country cooperation. A notable example of this effort is the Preferential Trade Area (PTA) for Eastern and Southern Africa. Through its subregional offices, ECA has been instrumental in promoting various types of cooperative activities designed to enhance individual and collective self-reliance.

127. ECA was one of the main architects of the Lagos Plan of Action (1980) which set the macro-framework for the development of African economies, including agriculture, and which has given high emphasis to rural development. ECA also played a major role in the development of the African Priority Programme for Economic Recovery (APPER), 1986-1990 and in preparing Africa's submission which culminated in the UN Programme of Action for African Economic Recovery and Development.

128. The Commission, in collaboration with other UN agencies and inter-governmental organizations, has been sponsoring various conferences and workshops to sensitize policy makers to issues related to rural development. In 1985, ECA sponsored among other things, the following:

(i) Expert Consultations on the Role of Rural Cooperatives in the Production Sector in Africa (with FAO, ILO, UNIDO and ICA);

(ii) Expert Consultation on Prevention of Encroachment on Arable Land in Africa (with UNEP, FAO, and UNESCO);

(iii) Workshop for Rural Women on the use of Technologies Tested and Found Appropriate for Home Use.

(iv) Assisted the member States to establish a subregional maize research network.

(v) Assisted in creating the Association of Food Marketing Agencies in Africa (AFMA-Africa).

129. Various reports and technical publications on topics related to WCARRD have been produced. ECA has also participated in the various inter-agency WCARRD review missions.

130. FAO, being the lead agency for the implementation of WCARRD, its' work programme has been greatly influenced by the Declaration of Principles and Action Programme of WCARRD. This is reflected in the various types of assistance FAO has provided in the following areas, just to mention a few:

(i) review of rural development policies and strategies;

(ii) education and training;

(iii) nutrition policy;

(iv) monitoring and evaluation;

(v) people's participation; and

(iv) women in development.

131. In conformity with WCARRD objectives FAO has been organizing a number of inter-agency high-level missions to various countries in response to their requests. Ethiopia, Lesotho, Mozambique, Somalia, Tanzania and Uganda have so far benefitted from this activity. The missions have no doubt been helpful in streamlining the policies and programmes of the respective countries with the principles and strategies of WCARRD. These have also resulted in several project proposals to be implemented with assistance from the appropriate agencies. As a follow-up to the missions, several policy and strategy discussions and workshops have been initiated with national Governments.

132. FAO has also been assisting Member Countries reorient their agricultural extension services in order to give greater emphasis to small farmers, especially women farmers, and to the adoption of the participatory approach in extension work. In addition, considerable attention has been given to improving extension and research linkages. FAO has also been assisting national institutions establish a functional linkage between extension and research (Ethiopia, Lesotho). Workshops have been organized to facilitate exchange of information and experiences on: (i) improving the organization and administration of agricultural services to small farmers; and, (ii) institutional development and training programmes and people's participation.

133. FAO has been giving emphasis to monitoring and evaluation in all its programmes, and has been providing assistance to Member Countries to strengthen and/or establish monitoring and evaluation mechanisms in appropriate ministries and in development projects.

134. FAO has pilot people's participation programme (PPP) projects in twelve countries, eight of which are in Africa. A manual for the M & E of people's participation projects is being tested.

135. The new orientation of FAO's programme in the area of women in rural development, and the importance attached to it, was reflected when the name of the service was changed from the Home Economics and Social Programmes Service to the Women in Agricultural and Rural Development Service. FAO has initiated several programmes under its Women in Development programme discussed earlier.

136. Several workshops and expert consultations have been held on women in food production and food security in Africa to identify suitable approaches and techniques for reorienting extension and training services to reach women farmers more effectively, to train economist, agricultural development officers in the formulation and design of projects, assisting women farmers, and to develop additional FAO-assisted Women in Food Systems Country Projects in Africa.

Constraints Identified by WCARRD Missions

137. Several fundamental constraints which hinder progress in the implementation of WCARRD are summarized below:

(i) lack of clearly defined and articulated rural development policies and stragegies;

(ii) lack of coordination among the various ministries and agencies engaged in the planning and implementation of rural development projects;

(iii) lack of mechanisms for continuous monitoring and evaluation;

(iv) lack of coordination of the activities of aid agencies;

(v) inefficiency in the management of parastatal organizations (the need to scrutinize and rationalize operations);

(vi) insufficient recognition or understanding of the role of women as food producers;

(vii) critical shortage of manpower, in particular for the decentralization of decision making and promotion of popular participation;

(viii) lack of statistical information for planning, and for determining the incidence and nature of rural poverty, and on women as food producers.

CONCLUSIONS AND RECOMMENDATIONS

138. The central concern of the World Conference on Agrarian Reform and Rural Development was the eradication of rural poverty and malnutrition. In the pursuit of these objectives, the vital role of people's participation has been underscored.

139. By adopting the Declaration of Principles and Action Programmes the Member States pledged themselves to undertake policy and institutional reforms in areas that influence rural development and equity: Since the conference, a number of Governments have individually and/or collectively pronounced their determination and, in certain cases, have actually taken steps to enhance rural development and to achieve equitable income distribution. By the Lagos Plan of Action, the African Governments committed themselves to increasing resource allocation to agriculture and by APPER they reaffirmed this commitment by stipulating that agriculture should receive 20-25 percent of public investment. As far as the WCARRD

recommendations are concerned, some countries have made good their pledges by adopting major policy and institutional reforms in line with the recommendations of WCARRD.

140. United Nations agencies, and other relevant international organizations, with FAO as lead agency, have been sensitizing policy makers on issues of major concern to WCARRD through Workshops, advisory missions and relevant studies. The agencies have also reoriented their activities and strategies to conform with the objectives and priorities of WCARRD. Inter-agency review missions have been launched on request, to countries to discuss and to assist them to formulate rural development strategies and to identify areas for assistance.

141. As indicated above significant progress has been made in sensitizing policy makers. Governments have affirmed and reaffirmed their commitment to give agriculture the highest priority and to eradicate rural poverty and malnutrition. Regrettably, however, such official pronouncements have rarely been translated into concrete actions. In fact, in many cases, the position of the rural population has not improved considerably. There is no evidence to suggest that rural poverty has been alleviated, let alone eradicated. In fact, in many countries the situation of the rural poor has worsened.

142. In the 1980's, food and agricultural production deteriorated, aggravated by recurrent droughts. Although the overall progress in infrastructural development and social services have been relatively good, the rural sector has yet to benefit from these services. Due to the severe economic recession and acute shortage of foreign exchange, some social and economic services are reported to be lagging in a number of countries. Therefore, the achievement of WCARRD goals still remain basically elusive for most countries.

143. It is evident that African countries are facing formidable obstacles in their attempts to accelerate rural development and eradicate poverty. Many entrenched obstacles, some of them attributable to colonial legacy, could not be dismantled in a short period of time. To achieve sound institutional and policy reforms, and for new and efficient institutions to develop the necessary competency, will no doubt take time. Ad hoc reforms would only serve to divert attention from the long-term development needs. What is required is systematic and sustained reform in the long-term interests of African agriculture and rural development.

144. There is no doubt that governments are making efforts in difficult circumstances and indeed the foundation for the realization of WCARRD objectives have been laid. However, to accelerate rural development and eliminate rural poverty, African Governments need to rededicate themselves once more to the ideals and principles enshrined in WCARRD. These ideals, together with those of LPA and UNPAAERD remain the solid basis for the achievement of accelerated rural development and greater self-reliance in rural development in the subregion.

145. More specifically, to facilitate the implementation of WCARRD the governments of the subregion may wish to consider actions in the following areas:

(i) reassessment of past rural development activities and formulation of clearly defined and targeted rural development strategies and implementation of mechanisms for continuous monitoring and evaluation of rural development progress;

(ii) co-ordination of the activities of the various government organizations and ministries involved in rural development;

(iii) evaluation of the role of parastatal organizations with the view of rationalizing their activities for improvement of their operational efficiencies;

(iv) the co-ordination of activities of AID agencies in order to maximize the benefits from their efforts;

(v) according sufficient recognition to the role of rural women in food production and food security in addition to their traditional role in the home, with a view to creating opportunities for them to participate fully in rural development as well as in the economic, social and political life of the society;

(vi) development of general indicators on implementation of WCARRD and improvement of statistics on the incidence and causes of rural poverty, the role of women in food production; and in the problems and needs of small farmers to facilitate planning from below.

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TABLE 1: Per Capita Annual Rate of Growth of Agriculture

Food and Cereal Production
- Pre WCARRD Situation

Region	Agricultural Production		Food Production		Cereal Production	
	1961/65-70	1970-76	1961/65-70	1970-76	1961/65-70	1970-76
Developing market economies	0.5	0.0	0.7	0.2	1.1	0.3
Africa	0.2	-1.5	0.1	-1.4	0.4	-0.8
Far East	0.8	0.1	0.9	0.2	1.6	0.0
Latin America	0.2	0.1	0.8	0.5	0.7	1.0
Near East	0.4	1.1	0.3	1.4	-0.6	2.1
Asian Centrally Planned Economies	1.0	0.7	0.9	0.6	1.1	0.7
All Developing Countries	0.7	0.2	0.7	0.3	1.1	0.4
MSA Countries	0.6	-0.5	0.7	-0.4	1.4	-0.4
Non-MSA Countries	0.4	0.4	0.6	0.7	0.7	1.3

Source: Review and analysis of agrarian reform and rural development in the developing countries since the mid-1960's, WCARRD/INF 3, FAO, Rome.

TABLE 2: Structure of Production 1965 and 1984, Eastern and Southern Africa

	GDP (million US$)		DISTRIBUTION OF GDP (PERCENT)						
			AGRICULTURE		INDUSTRY		MANUFACTURING	SERVICES	
COUNTRY	1965	1984	1965	1984	1965	1984	1965	1984	196
Botswana	50	990	34	6	19	45	12	7	4
Ethiopia	1,180	4,270	58	48	14	16	7	11	2
Kenya	920	5,140	35	31	18	21	11	12	4
Lesotho	50	360	65	-	5	-	1	-	3
Madagascar	730	2,380	31	42	16	16	-	-	5
Malawi	220	1,090	50	37	13	18	-	-	3
Mauritius	190	860	16	14	23	25	14	17	6
Somalia	220	1,364	71	-	6	-	3	-	2
Tanzania	790	4,410	46	-	14	-	8	-	4
Uganda	1,180	4,710	52	-	13	-	8	-	3
Zambia	1,060	2,640	14	15	40	26	3	7	3
Zimbabwe	960	4,580	18	14	35	40	20	27	4

Source: World Development Report 1986, World Bank

Table 3: Structure of Merchandise Exports

(Percentage Share)

Country	Fuel, minerals and metals		Other primary commodities		Textile and clothing	
	1965	1982	1965	1982	1965	1982
Angola	6	..	76	..	..	..
Ethiopia	(.)	8	99	91	(.)	(.)
Kenya	13	29	77	57	(.)	(.)
Lesotho						
Madagascar	4	12	90	81	1	4
Malawi	(.)	(.)	99	88	(.)	6
Mozambique	14	..	84	..	1	..
Somalia	(.)	(.)	86	99		
Tanzania	1	5	86	82	(.)	3
Uganda	13	..	86	..		
Zambia	97	..	3	..	..	..
Zimbabwe	24	..	47	..	6	..

.. Not available

(.) Less than half the unit shown

Table 4: Estimated Fertilizer Use: Average 1979-81 (As fertilizer nutrients)

Country	Total used (1,000 MT)			Harvested Area (1,000 ha)			Quantity used (kg/ha)		
	Total	Export and non-food crops	Food crops	Total	Export and non-food crops	Food crops	Total	Export and non-food crops	Fo cr
Angola	14	5	9	1,572	306	1,266	9	16	
Botswana	1	-	-	193	1	192	5	-	
Dijbouti	1	-	-	-	-	-	-	-	
Ethiopia	42	23	19	7,625	812	6,813	6	28	
Kenya	61	12	49	2,844	350	2,494	21	34	
Lesotho	5	-	-	-	-	-	23	-	
Madagascar	8	6	2	2,306	277	2,029	3	22	
Malawi	31	9	22	-	-	-	15	69	
Mauritius	26	25	-	97	80	17	268	313	
Mozambique	31	26	5	2,570	207	2,363	12	126	
Somalia	1	-	1	695	4	690	1	-	
Swaziland	14	-	-	150	22	128	93	-	
Tanzania	32	21	11	5,400	669	4,731	6	31	
Uganda	1	1	-	3,358	331	3,027	-	3	
Zambia	80	8	72	1,235	34	1,201	65	235	
Zimbabwe	153	80	73	2,300	300	2,000	67	267	

Source: FAO, Atlas of African Agriculture - African Agriculture, the next 25 years, Rome 1986

Table 5: Agricultural Research Efforts

Sub-Saharan Africa, Asia and Latin America, 1980

	Expenditure on Agricultural Research		Agricultural Scientist Staff Years
.on	As percentage of agricultural GDP	Per scientist staff year (thousands of US $)	Per $10 million agricultural GDP
-Saharan Africa:			
:st Africa	1.19	83	1.42
ıst Africa	0.81	46	1.76
)uthern Africa 1/	1.23	50	2.47
ı:			
)uth Asia	0.43	34	1.29
)utheast Asia	0.52	25	2.07
ı America			
rmperate South America	0.70	53	1.32
opical South America	0.98	56	1.77
ribbean and Central America	0.63	52	1.20

1/ Includes South Africa

ce: World Bank, Financing Adjustment with Growth in Sub-Saharan Africa, 1986-90, from R.A. Evenson; "The IARCs: Evidence of Impact on National Research and Extension on Productivity", for the Consultative Group on International Agricultural Research (draft), 1985.

Table 6: Education Related Indicators

Country	Numbers enrolled in primary schools as percentage of age group					
	Total		Male		Female	
	1965	1982	1965	1982	1965	1982
Angola	39	..	53	..	26	..
Botswana	65	102	59	94	71	110
Ethiopia	11	46 a/	16	60 a/	6	33 a/
Kenya	54	104	69	114	40	94
Lesotho	94	112	74	95	114	129
Madagascar	65	100 a/	70	..	59	..
Mauritius	101	106	105	107	97	105
Malawi	44	62 a/	55	73 a/	32	51 a/
Mozambique	37	104	48	119	26	72
Somalia	10	30 a/	16	38 a/	4	21 a/
Swaziland	74	111	76	111	71	111
Tanzania	32	98	40	101	25	95
Uganda	67	60	83	69	50	51
Zambia	53	96 a/	59	102 a/	46	90 a/
Zimbabwe	110	130 a/	128	134 a/	92	125 a/
Sub-Sahara	42 w	71 w	55 w	82 w	28 w	65 w
All low income	62 w	85 w	77 w	103 w	47 w	77 w
All lower mid.	74 w	103 w	82 w	109 w	65 w	98 w
All upper mid.	96 w	102 w	100 w	108 w	92 w	100 w
Ind. market economies	110 w	102 w	107 w	102 w	110 w	102 w

a/ Figures are for years other than those specified.

Source: World Bank, Financing Adjustment with Growth in Sub-Saharan Africa, 1986-90.

Table 7: Life Expectancy and related indicators

Country	Life expectancy at birth (years) Male		Female		Infant mortality rate (aged under 1)		Child death rate (aged 1-4)	
	1965	1984	1965	1984	1965	1984	1965	1984
Angola	34	42	37	44	193	144	52	30
Botswana	46	55	49	61	108	72	21	11
Ethiopia	42	43	43	46	166	172	37	39
Kenya	43	52	46	56	113	92	25	16
Lesotho	47	52	50	56	143	107	20	14
Madagascar	41	51	44	54	..	110	..	22
Malawi	38	44	40	46	201	158	55	36
Mauritius	59	62	63	69	64	26	9	1
Mozambique	36	45	39	48	172	125	31	22
Somalia	36	44	40	47	166	153	37	33
Swaziland								
Tanzania	41	50	44	53	138	111	29	22
Uganda	43	49	47	53	122	110	26	21
Zambia	42	50	46	53	123	85	29	15
Zimbabwe	46	55	49	59	104	77	15	7

.. Not available

Source: World Bank, World Bank Development Report, 1986, IBRD, Washington D.C.

Table 8: Per Capita Dietary Energy Supply (DES) 1979-81
(Kcals/day)

Country	1979-81	1984	% Change 1979/81-84	Average of Requirement 1984
Angola	2,154	1,957	- 9.1	93
Botswana	2,169	1,939	-10.6	92
Ethiopia	2,172	1,695	-22.0	81
Kenya	2,000	1,810	- 9.5	86
Lesotho	2,377	2,338	- 1.6	111
Madagascar	2,519	2,413	- 4.2	115
Malawi	2,269	2,438	7.4	116
Mauritius	2,721	2,801	2.9	133
Mozambique	1,806	1,637	- 9.4	78
Somalia	2,082	2,068	- 0.7	98
Swaziland	2,496	2,579	3.2	123
Tanzania	2,436	2,247	- 7.8	107
Uganda	2,146	2,394	11.6	114
Zambia	2,180	1,968	-10.1	94
Zimbabwe	2,134	1,843	-14.6	88

Source: FAO, Atlas of African Agriculture,
African Agriculture: the next twenty-five years, Rome.